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Fostering Global Graduates: Researching  
student actions in teamwork projects, and  
the ways through which students develop  
intercultural competencies  
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## **Declaration**

I declare that the present thesis is my own work, except where due acknowledgement is made, and that its contents have not been previously included in a thesis or dissertation submitted to this University or to any other institution for a degree, diploma, or any other qualifications.

## **Abstract**

This study explores how students develop intercultural competencies through teamwork experiences. Universities, in order to produce “global graduates,” need to focus on fostering their students’ teamwork skills and intercultural competencies so that they can communicate well with people from different cultural backgrounds. However, students are often given teamwork projects where the development of such competencies is incidental rather than deliberate. Until now, research that looks at student teamwork projects tends to focus on self-reports and focus groups, instead of looking at the group processes themselves. There are two aspects of research that have until now received little attention: how students interact in teamwork projects, and how they develop intercultural competencies from their teamwork experiences. This thesis will present two case studies from multicultural team projects in undergraduate STEM modules, where the students’ interactions were recorded and reflected upon in stimulated-recall style interviews. It will then consider the extent to which students’ intercultural competencies were demonstrated and enhanced through their teamwork projects, and areas in which they could be enhanced further. This will be followed by policy recommendations for designing student teamwork projects, with a focus on the need for embedding reflection at all stages of the project, and focussing students on their communicative processes, learning and applying IC frameworks to their experiences, and developing reflective practices.

## **Abbreviations**

GPCF – Global People Competency Framework

HEI – Higher Education Institution

HE – Higher Education

IC – Intercultural Competence

ICs – Intercultural Competencies

# **1 Introduction**

This chapter will introduce the context and background to this research, underlining its importance, and the overall research aims. Then, I will present my motivation for undertaking this research. After this, the key concepts of this research are presented and defined. These concepts are Culture and Intercultural Communication, Intercultural Competence, Global Graduates, and Teamwork/Group work. This is followed by an outline to the overall structure of this thesis.

## **1.1 Context and Background to this Study**

The main problem that this research aims to tackle is that intercultural competencies are incredibly important for students to learn before they graduate and enter multicultural and international workplaces, but, currently how these competencies can be developed is poorly understood by lecturers. Furthermore, there are concerns as to whether universities are adequately teaching students how to develop these competencies. It is important that if and how students may develop intercultural competencies is researched so that adequate resources and pedagogic recommendations can be made so that students are better prepared for working in multicultural teams and living in multicultural societies. This section presents the context of this research and provides evidence for its importance and appropriateness to the current situation in Higher Education (HE) in the UK.

Three intersecting themes, important to Higher Education Institutions (HEIs), are significant to this research. The first is the internationalisation of higher education, the second is student employability and the development of intercultural competencies, and the third is the use of teamwork in assessed modules as part of student degrees in HEIs. Internationalisation within higher education can refer to several different areas, such as increased level of information sharing, greater movement of students and academics, international collaborations, or the spread of online education courses (Streitwieser, 2014). Indeed, internationalisation is not easily defined (Callan, 1998; Knight, 1997). However, for the purposes of this research I will be looking at internationalisation in the context of greater movement of students, which has led to an increase in the international student

population at UK HEIs. In the UK there were over 400,000 international students in 2012 (“UKCISA,” 2012), and according to UK Home Office statistics, that number has been increasing year on year (“UK Home Office,” 2013). At the HEI where this research took place, more than one quarter of the student population is from outside of the UK. Internationalisation in UK HE reflects increasing globalisation in Britain. Although internationalisation comes with challenges, it also provides opportunities to prepare students for the demands of modern international and multicultural workplaces.

An opportunity to prepare students for these workplaces can be through team projects in which the students have no choice but to work with people from different cultural backgrounds. In essence, the lecturer can use the diverse student population to their advantage, providing opportunities for students to develop intercultural competencies. However, these opportunities, though recognised by various actors in HEIs (e.g. senior management, students and teaching staff), are difficult to fully take advantage of. Indeed, as can be seen in Table 1 below, very few modules taught at the university where this research takes place involve teamwork as part of their assessment. So, students are given few opportunities to build intercultural competencies from teamwork projects through the course of their degrees.

**Table 1 - Percentage of modules using assessed teamwork at this HEI (data retrieved Summer 2013, N=3,024 modules)**

		Faculty of Arts	Faculty of Sciences	Faculty of Social Sciences
Percentage of modules with an assessed group work element	Undergraduate	3.6	2.1	8.9
	Postgraduate	2.9	1	19.6

Students find working on projects in multicultural teams more challenging than regular degree demands (Trahar & Hyland, 2011). According to Summers and Volet (2008, p. 368) students’ experiences of teamwork “are not serving the educational and social goals of internationalisation.” Numerous studies (see

section 2.1) have found that students do not learn the competencies associated with “global graduates’ through their few experiences of working in multicultural teams. There are also warnings that employing intercultural teamwork assignments carelessly could instead encourage marginalisation (Turner, 2009, p. 241). In spite of these warnings, and the opportunities lost, it seems that many people within HEI’s continue to maintain laissez-faire attitudes towards the development of competencies within student teamwork projects, where often the focus is on teamwork output rather than process (Reid & Garson, 2016). Research that looks at teamwork experiences rarely also observes teamwork processes (see section 2.1), and instead relies on self-reports. There has yet to be substantial research conducted that looks at student teamwork processes to understand if and how students are negotiating working in multicultural teams, and whether they are developing any intercultural competencies from these experiences.

Part of the criteria to measure the success of internationalisation in HEIs must be that students from different national and cultural backgrounds learn from working together. The role of this research is to understand if and how this is happening because, if UK HEIs are unsuccessful in producing students with a measure of intercultural competence, then employers will look elsewhere when recruiting. My stance is that this is not just about an HEI’s role in improving a students’ employability. Developing intercultural competencies can also be of benefit to wider society, as a means of promoting global understanding and easing inter-ethnic tensions and conflicts. As our societies welcome more and more people from different countries, university graduates need to be able to act as intermediaries, and role models, for intercultural understanding, so that countries with multicultural populations are less divided by prejudices and more open-minded about difference.

The aim of this research is therefore to try and better understand how university students in a higher education (HE) context develop intercultural competencies through the experience of group work assignments, which is incredibly important to prepare them for international workplaces and living and working in multicultural contexts. My motivation for undertaking this research, and my



appreciation of its importance, relates back to my own experiences of learning intercultural competencies, which I detail below.

## **1.2 Motivation for Undertaking this Research**

Intercultural issues have long interested me, even before I knew that they could be defined as such. I read French for my undergraduate degree, which I commenced in 2006. This provided me with the opportunity to live abroad in Martinique, and from this experience I began to appreciate how people from different cultures interacted with each other, and how misunderstandings between people could occur not through any ill-intent, but simply through cultural differences.

After graduating from Royal Holloway in 2010, I moved to Hokkaido, Japan and began work as an assistant language teacher. I stayed there for two years. I first encountered intercultural communication as a field of study during this time, and I began to see my interactions with Japanese people through the lens of cultural differences. I faced the challenges of team-teaching, sometimes with teachers I had only briefly met before, and with whom I didn't share a common language. But through these challenges and experiences I began to see patterns in their interactions. I was forced to remain silent due to my lack of Japanese, but this increased my observation skills. The lengths of silence in communication were longer than I was used to, as were the levels of deference and politeness. I started learning the rules of communicating to Japanese people, both in English and Japanese. Moreover, I began to test these rules, because I was so interested in learning about them, and wanted to learn more about the cultural boundaries, and how to get what I wanted out of interactions. When applied to team-teaching, I wanted to persuade teachers to encourage student participation, and to use a less didactic style in class. Concerning students, I wanted them to communicate more with each other in English. This was more difficult than I had anticipated because of the pedagogic culture of Japanese schools, and my success was based on good collaboration and communication, as well as being quite persistent. I found that in Japan many of my fellow teachers struggled with their work life, and with team-teaching. However, for a long time I saw many of the issues as superficial problems,

which could be tackled pragmatically. It wasn't until I attended a talk on intercultural communication that I began to see the deeper principles that underlie the problems that I and other teachers were encountering. I wanted to learn more about this, so I returned to the UK to study a postgraduate degree in Intercultural Communication.

By studying intercultural communication, I was able to reflect on my time in Japan and Martinique and gain a deeper understanding of my experiences. What I learnt about myself and these different cultures made it easier to understand the issues that could come to the fore when working in multicultural groups. The difficulties that people from some cultures found in speaking their mind openly (often in their second or third language), and in finding gaps in the conversation long enough to assert their own point of view. I also had to question my own identity as a white male native speaker in group work in the UK, and how people from other cultures would respond to that. I had to resist the temptation to dominate group work and try to facilitate communication instead. I saw that successful multicultural group work could achieve great things, but that it could also end disastrously.

In doing this current research on multicultural group work in HEIs, I believe that my background of living in different countries, learning about different perspectives and cultures, has helped inform my understanding of the participants in intercultural group work. Working in such groups myself, and studying intercultural communication, brought me to the point where I wanted to study specific aspects of group work further. I hope that this research will deepen our understanding of multicultural group work processes, and to help guide lecturers in how to ensure that students develop intercultural competencies through their teamwork experiences.

### **1.3 Defining the Key Terms and Concepts in this Thesis**

It is important to be aware that there are several terms that are used in this thesis that have contested definitions. These are listed below:

1. Culture and an intercultural situation
2. Intercultural Competence and intercultural competencies
3. Global Graduates
4. Teamwork/Group work

Some of these terms, particularly the first two in this list, have such varied definitions and conceptualisations that discussion of them could be, and in some cases have been, the theme of books that are far longer than this thesis. The space below is dedicated to exploring these terms and defining how they are used in this thesis, with some reference to the wider literature, but it hardly does justice to the vast range of academic and professional debates around them.

### **1.3.1 Culture and an Intercultural Situation**

One of the key terms in this thesis is 'Intercultural Competence'; however, in order to get to an understanding of this term, it is first necessary to define culture. Defining culture is difficult. Lowell (1934, p. 115) commented that trying to put culture into words is "like trying to seize the air in the hand, when one finds it is everywhere except within one's grasp." That said, various researchers from a wide range of paradigms have tried to define culture, including cross-cultural psychology (Hofstede, 1984) and anthropology (Geertz, 1973). In this thesis I shall be working from the definition of culture suggested by Spencer-Oatey (2008, p. 3) that:

*Culture is a fuzzy set of basic assumptions and values, orientations to life, beliefs, policies, procedures and behavioural conventions that are shared by a group of people, and that influence (but do not determine) each member's behaviour and his/her interpretations of the 'meaning' of other people's behaviour.*

This definition associates culture with social groups (e.g. nation, generational group, profession, political affiliation etc.), but it is also important to note that an individual can be a member of different social groups simultaneously. Also, as has been found recently in cross-cultural psychology, there can be more variety within a social group than between different social groups (Schwartz, 2013). Culture is not deterministic of behaviour but can influence it.

An intercultural situation is one that involves people from different (although possibly also overlapping) social groups. This work will follow the definition used by Spencer-Oatey and Franklin (2009, p. 3) which identifies an intercultural situation as:

*One in which the cultural distance between the participants is significant enough to have an effect on interaction/communication that is noticeable to at least one of the parties.*

In this research there were several different parties interacting. The first was the student-participants, who were interacting with each other (so each being their own party). Then there is myself, who, although I was not part of the interactions during the team projects, was still a participant in that I was observing their teamwork, and also interpreting the situations with the students during the interviews, and in the analysis. Another party in this research was the lecturer who coordinated the module, who was instrumental in deciding on the diverse composition of the groups. There were therefore several different parties with different cultural backgrounds who could (and did) interpret certain interactions as intercultural (discussed further in the Methodology).

How certain interactions can be affected by cultural distance has been subject to much academic research (e.g. Spencer-Oatey, 2008). This is because there are numerous ways in which intercultural interactions can be affected by cultural distance. Fitzgerald (2003, p. 79) lists many of the different examples of how the components of an interaction can differ from group to group (with possible individual stylistic variations):

- Ways of showing interest
- When to start talking and when to stop
- Whether it is permissible to talk at the same time as others
- How politeness is achieved
- Whether silence is acceptable or discomforting
- Whether disagreement should be avoided
- How information should be organised and presented

Different styles of communicating can lead to misunderstandings and negative stereotyping (Fitzgerald, 2003), so it is important that students are educated in

ways to help them understand and practice negotiating intercultural interactions that lead to positive outcomes. A prominent school of thought in achieving this is through facilitating the development of intercultural competencies.

### **1.3.2 Intercultural Competence and Intercultural Competencies**

Intercultural Competence, similar to 'culture' above, is a term that has many different definitions; at the same time there are also many different terms that describe intercultural competence (see literature review chapter, section 2.2). In this thesis, I will use the term "intercultural competence" as an umbrella term for the inconsistent terminology in this area. This will follow the definition provided by Bartel-Radic (2009, p. 15), which defines intercultural competence as:

*The ability to understand the specificities of an intercultural interaction and to adapt oneself to these specificities in order to produce behaviour which allows the message transmitted to be interpreted as it was intended to be.<sup>1</sup>*

This echoes the definition by Spitzberg (1988, p. 68) of communicative competence as when an interaction is "perceived as effective in fulfilling certain rewarding objectives in a way that is also appropriate to the context in which the interaction occurs." The overall definition provided here obscures that intercultural competence is usually presented a construction of many different skills, attitudes and knowledge (intercultural competencies, see Spencer-Oatey & Franklin, 2009). There is a lack of consensus over what these different skills, competencies and knowledge are. According to Spitzberg and Chagnon (2009), over 300 different constructs related to intercultural competence. There is also a lack of empirical data to test how important and relevant each of these constructs are to effective intercultural communication. This raises a further issue for defining intercultural competence, which is sometimes also viewed as an assessment of whether someone is effective at communicating in intercultural situations. Assessing for a level of intercultural competence is problematic, and is mentioned here only to make the reader aware that some research and research

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<sup>1</sup>"La capacité de comprendre les spécificités d'une situation d'interaction interculturelle et de s'adapter à cette spécificité de manière à produire un comportement qui permette que le message émis soit interprété de la manière souhaitée" My translation

instruments exist for this purpose (e.g. the Intercultural Development Inventory as described by Hammer, Bennett, & Wiseman, 2003). However, the focus of this research is not on assessment of intercultural competence, but on the development of intercultural competencies<sup>2</sup> (ICs), which, as mentioned above, are commonly constructed as a combination of knowledge, skills and attitudes (Spencer-Oatey & Franklin, 2009).

There are two aspects that need to be considered for the development of ICs. The first is the selection of ICs, or of a framework of ICs. For this research, I will be using those described by Spencer-Oatey and Stadler (2009) in the *Global People Competency Framework* (GPCF, see Figure 6) as a basis for understanding different intercultural competencies used and developed in multicultural teamwork projects (this framework, and why I have chosen it over others, will be discussed in greater detail in the Literature Review, beginning at section 2.2.2.3). The second core aspect to IC development is the selection of a framework for IC development. There are several different frameworks that conceptualise the process of developing IC (but still relatively few, see Spencer-Oatey, 2018) and the one chosen for this research is Taylor's Intercultural Competence Development Model (Taylor, 1994a). The justification for using this model over other models for IC development are considered in depth in the Literature Review Chapter (see section 2.2.2). The combining of these two aspects should help to increase our understanding of how ICs are developed, and which of those in the GPCF are relevant to fostering "global graduates" from HEIs.

### **1.3.3 Global Graduates**

The third key term in this thesis is "global graduates." It is defined by employers as being composed of skills, attitudes and knowledge (much like ICs), which are grouped into four main categories: a global mind-set and cultural dexterity, the ability to communicate with people from different backgrounds, collaboration and

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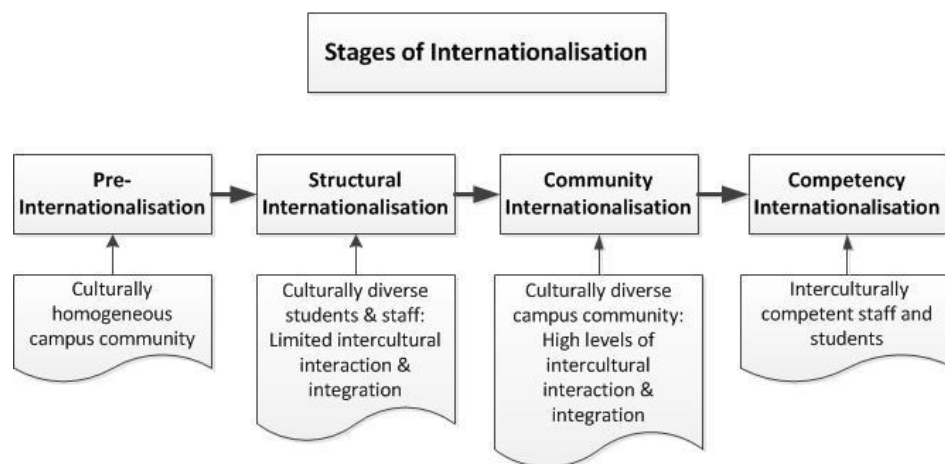
<sup>2</sup> When this thesis refers to "competencies" it is referring to either a skill, attitude or knowledge, applying the commonly used definition in intercultural competence research. The majority of these competencies are skills, which is used in this thesis according to the dictionary definition: "the ability to do something well" (Oxford Dictionaries, 2018).

teamwork skills, and global knowledge (Diamond, Walkley, Forbes, Hughes, & Sheen, 2011). This term has been conceptualised less in research than the other two terms, but its use is widespread at HEIs and in organisations that aim to prepare graduates for employment in the international work place. A Google search for the term “global graduate” produces 220,000 results, and those from the first ten pages are all either HEIs, employers, recruiters, or organisations related to HEIs that want to advertise this aspect of their work (Google Search Engine, 2017). Many universities now use this term to advertise the experiences prospective students will receive if they study there (e.g. Manchester University, 2017; Swansea University, 2017; University of Central Lancashire, 2017; University of Exeter, 2017; University of Surrey, 2017). They have recognised that going through the process of internationalisation provides opportunities for students to develop into “global graduates.” However, what this means in terms of the student experience varies between institutions.

The variation in what “global graduate” means according to institution is due to different stages of internationalisation in different universities. Spencer-Oatey and Dauber (2015) have suggested that there are four stages of internationalisation for a HEI, which begins with “Pre-internationalisation” and has an end goal of “Competency Internationalisation” (see Figure 1). However, researching how the various institutions use the term, it seems that what they offer is far from an integrated community with high levels of intercultural interactions, and far closer to “Structural Internationalisation.” Many HEIs claim to help their students develop global skills, but only through programmes that are not integrated with a students' degree. These programmes are more likely to take the form of awards or certificates for students who take extra-curricular activities to develop their global attributes (University of Manchester, 2018), or from undertaking courses to supplement their study abroad (University of Nottingham, 2013), or attending intercultural lectures (University of Kent, 2018), or completing language classes (“University of Surrey,” 2017). This appending of intercultural learning may not be effective in helping students developing intercultural competencies. The British Council recommends more than this. They assert that inclusion and integration of students from different cultures as an

important step in internationalisation (British Council, 2014). This would be in order ensure that they interact meaningfully with each other, and develop intercultural attitudes, skills and knowledge through those interactions. It has been argued that the current approach of supplementary events and programmes, rather than integrating this learning into the university experience does not seem to ensure that there are enough experiences for students to effectively develop into Global Graduates (Diamond et al., 2011).

**Figure 1 - Developmental Stages of Internationalisation (Spencer-Oatey & Dauber, 2015, p. 4)**



The focus Higher Education Institutions (HEIs) in creating "global graduates", directs researchers towards considering intercultural competencies, as they appear to be talking overlapping concepts: developing the attitudes, skills and knowledge appropriate for intercultural interactions. Some commentators have grouped intercultural competencies with employability and shown there is some overlap between the two. However, although some research does focus on employability in a global sense (see Figure 2), much more research looks at the development of intercultural competencies as a proxy for employability in international workplaces.



**Figure 2 - Key transferable employability skills and international experience (Jones, 2013, p. 101)**

	<i>Key skills requirements of employers*</i>	<i>Key skills developed through international work placement, study, volunteering or service learning (with relevant reference shown in parentheses)</i>
<i>Self-sufficiency/self-efficacy skills</i>	Self-awareness Initiative and enterprise Willingness to learn Planning and organizing Integrity Commitment/motivation Problem-solving Flexibility Self-management	Self-awareness, self-confidence, sense of identity, and personal independence (Black and Duhon, 2006; Hadis, 2005; NUS, 2012; British Academy, 2012) Being informed, greater interest in global affairs and cross-cultural perspectives (Crossman and Clarke, 2010; Jones, 2010; Rowan-Kenyon and Niehaus, 2011) Organizational skills, project management, decision-making, creativity and taking on responsibility (Crossman and Clarke, 2010; Jones, 2010 and 2012; NUS, 2012) Vision, independence, experience, broader outlook and attitude (NUS 2012) Problem-solving, coping strategies and risk-taking (Jones, 2010 and 2012) Patience, flexibility, adaptability, open-mindedness and humanity (Williams, 2005; Black and Duhon, 2006; Crossman and Clarke, 2010; Jones, 2012)
<i>People skills</i>	Team working Communication skills Foreign language Networking Leadership Customer service Interpersonal skills Intercultural skills	Team work and team leadership skills (Jones, 2010 and 2012; NUS, 2012) Fluency, accuracy and appropriateness of language competence (British Academy 2012) Mediation skills, conflict resolution, sensitivity, humility and respect (Jones, 2012) Forging of relationships and networks (Crossman and Clarke, 2010) Challenge to personal stereotypes, cultural relativism (Sutton and Rubin, 2004; Jones, 2010) Enhanced intercultural communication, conducting business interculturality (Hadis, 2005; Crossman and Clarke, 2010; Jones, 2010 and 2012; Gu, 2012) Cultural empathy (Williams, 2005; Black and Duhon, 2006; Crossman and Clarke 2010; Jones, 2010) Non-judgmental observation, respect for local values without abandoning one's own (British Academy, 2012) Cultural understandings, ways of thinking and adaptation to complex cultural milieux (Crossman and Clarke, 2010; British Academy, 2012)

\*There are many similar lists produced by universities and employers around the world. This list is based on two sources, chosen to offer different national perspectives: Prospects: the UK's official graduate careers website ([www.prospects.ac.uk/job\\_applications\\_what\\_do\\_employers\\_want.htm](http://www.prospects.ac.uk/job_applications_what_do_employers_want.htm)), and University of Sydney guidance ([sydney.edu.au/careers/career\\_advice/downloads/id\\_emp\\_skills.pdf](http://sydney.edu.au/careers/career_advice/downloads/id_emp_skills.pdf)). It has been grouped into two broad themes by the author. Also cited are literacy, numeracy, commercial awareness and technology skills which have not been included here.

According to Figure 2, almost all employability skills could be learnt through working in an intercultural context. Another aspect to consider from the figure is that several of the skills listed there, such as self-awareness, flexibility and interpersonal skills, are also listed in IC frameworks (see Spitzberg & Changnon, 2009), including the GPCF (Spencer-Oatey & Stadler, 2009). These may be considered as core competencies, whatever the context, however, it is now argued that with increasing internationalisation, "there are global dimensions to these competencies that must be factored into employers' competency frameworks" (Diamond et al., 2011, p. 7). According to Jones (2013) all employability skills, with the exception of literacy, numeracy, commercial awareness and technology skills, can be gained from international experiences. However, she does stress, echoing Spencer-Oatey and Dauber, that as yet universities have failed to maximise the potential IC learning that students can gain through internationalisation. This underlines the importance of my research, as I may be able to find more ways in which HEIs will be able to maximise the potential IC learning that students can gain during their degrees. This would in turn help to better understand the processes required to foster "global graduates."

#### 1.3.4 Teamwork/Group Work

From the literature, there seem to be four types of definitions for groups and teams. One type defines "group" and "team" as separate states, which are distinguishable. The second type focuses on development; a group develops into a team (the literature rarely discusses a team becoming a group). The third type provides approximate definitions of both and asserts that there is some overlap between the working of a team and the working of a group. The fourth type defines only one of the terms, usually the term they are using, and does not define the other. But whatever that other term means, if it is excluded from the work it is assumed to be different to the term they are using. However, more often, the other term is assumed to mean approximately the same.

None of these types of definitions are individually helpful in understanding whether the students that have been set a collaborative piece of work are doing so in teams or groups. Here I consider the four different types of definitions, and, using examples, will show how they may be employed, and the limitations of these definitions.

In his research on learning in student teams, Fink (2002, p. 12) provides a detailed definition of the first two types of definition, detailing what constitutes a group or a team, and how a group becomes a team:

*"Groups and teams consist of two or more people who interact in some common activity. What distinguishes teams from groups is that teams are characterized by:*

- *A high level of individual commitment to the welfare of the group;*
- *A high level of trust among the members of the group.*

*The process of having a "group" of people become a "team" requires:*

- *Time interacting together;*
- *Resources (especially intellectual);*
- *A challenging task that becomes a common goal;*
- *Frequent feedback on individual and group performance."*

According to Fink, levels of trust and commitment to welfare distinguish between a group and a team. There are several problems with this definition. The first is the origin of trust and commitment. A group working together may feel that they have high levels of trust and commitment to each other's welfare, but that may be because they are friends, rather than a team. There could also be individual differences in what counts as a high level of trust and commitment. An individual may tend to be untrusting of whoever they are working with, but still committed to the work. A third problem is that this definition does not consider the 'free-rider' phenomenon. A group of students may be working well as a team, except for one student. This student is not committed to the group and does not share with them the same level of trust. Would this be a team plus an individual, or just a group? It could arguably be both. Fink does not resolve these problems in his definition.

The second type of definition, where Fink (2002) above outlines the process for a group to become a team is also problematic. A group becomes a team over time, with intellectual resources, with a common goal, and with frequent feedback on performance. However, it is not known from this whether a team interacts differently compared to a group. It is also unknown how much time (and the quality of it), how many resources, the nature of the task, or the nature of the feedback. Each of these qualitative elements point to a subjective interpretation of what constitutes a team or a group, and the same interpretation to say if a group qualifies for the definition of "team." Fink's process also assumes a singular direction of progression from "group" to "team", and that a group cannot start as a team because in order to become a team they need time together first.

The third type of definition sees "group" and "team" as two states with some shared characteristics, similar to overlapping circles in a Venn-diagram. Guzzo and Dickson (1996, p. 309) state that: "there may be degrees of difference [between the terms 'team' and 'group'], rather than fundamental divergences, in the meanings implied." This type of definition makes it more difficult for the researcher (or a lecturer) to be able to discern when students are working together as a "team" or as a "group." It also suggests that the students could be a

team and a group at the same time. While this definition does describe more accurately the complexity of reality when working with others, it has its limitations. It is less useful pedagogically to students who may want to learn about the quality of their collaboration, and to those who are new to the concepts of teamwork and group work.

The fourth type of definition, where only one term is defined, is the most problematic. In their research Popov et. al (2012, p. 303) define “multicultural student group work” as:

*A collaboration of two or more individuals from different (national) cultural backgrounds, who have been assigned interdependent tasks and are jointly responsible for the final results, who see themselves and are seen by others as a collective unit embedded in an academic environment and who manage their relationships within a certain educational institution.*

This definition does not distinguish group work as separate from teamwork. It is hard to imagine, however, a team where the tasks are not also interdependent, with more than one individual, and that are part of a collective unit embedded in an organisational environment. Popov et al.'s goal is understandable, they wish to define the term they will use and apply it exclusively within their work. However, although they start with a definition of group work, their article uses the concept of "team" as interchangeable for "group":

*To effectively manage multicultural **group** work we need “to recognize underlying cultural causes of conflict, and to intervene in ways that both get the **team** back on track and empower its members to deal with future challenges themselves” (Brett, Behfar, & Kern, 2006, p. 3). (Popov et al., 2012, p. 303)*

This type of scholarship, which seeks to clarify, in fact adds to the confusion, but underlines the subjective nature of distinguishing between the two terms. In the example above, Popov et al. quoted from Brett et al., and copied over the term "team." This means that Popov et al. judged that Brett et al.'s concept of team was transferable to multicultural student group work. For them, the two terms were similar enough to be interchanged.

In the student teamwork/group work literature using the terms interchangeably is the more common practice (see Table 2). There are examples, within this, of some researchers implying a difference, even as they use the terms interchangeably. In the work by Kimmel and Volet (2010a, p. 454), one of the items in their survey to measure for group cohesion is: "To what extent did your **group** work together as a **team** to plan what to do, and to resolve any difficulties along the way?". However, the article presenting this research uses "team" and "group" interchangeably. They seem to have a clear theoretical distinction in their research instrument between *being* a group and *working* as a team, which they expect their participants to understand. But, they then expect those reading their article to see them as theoretically interchangeable! It is problematic to define the concepts differently for the participants and the readers, but there is no explanation of why this is.

It seems that such cross-pollination is unavoidable. The articles in Table 2 that use one of the terms exclusively throughout the work, still cite research using the other term, or both terms interchangeably. This evidence seems to favour the third type of definition described above for defining teams and groups. There are degrees of difference between them, but also such conceptual similarities as to make research on teamwork transferable to group work, and vice versa. Indeed, in most cases the similarities are so strong, and the degrees of difference so faint, that researchers choose to use the terms interchangeably, either within the text of the article, or from the research they cite.

**Table 2 - How researchers use the terms "team" and "group"**

Articles which only use the term group/group work	6 (Ädel, 2011; Elliott & Reynolds, 2014; Kimmel & Volet, 2010b; Liu & Dall'Alba, 2012; Summers & Volet, 2008; Turner, 2009)
Articles which only use the term team/teamwork	None
Articles which use both terms (or their derivatives group work and teamwork) seemingly interchangeably	12 (Ashraf, 2004; Burdett, 2014; D'Alessandro & Volet, 2012; E. Dunne & Rawlins, 2000; Kimmel & Volet, 2010a; Maiden & Perry, 2011; Montgomery, 2009; Peterson, 2012; Popov et al., 2012; R. Reid & Garson, 2016;

	Rienties, Nanclares, Jindal-Snape, & Alcott, 2012; Strauss & U, 2007; Sweeney, Weaven, & Herington, 2008)
Articles which define one of the terms	2 (Popov et al., 2012; Sweeney et al., 2008)
Articles which differentiate between the term group and team (or their derivatives)	None

For clarity, researchers could follow the following principles when it comes to presenting research on teamwork and/or group work. Where the researchers draw a theoretical distinction between group and team they should keep this consistent in their presentation of the research and stick with one term (as seen, but inconsistently applied, in Kimmel & Volet, 2010a). Also, there should be some acknowledgement by researchers who only define one of the terms that there is a second term they will use interchangeably (as discussed, but not followed, in the example of in Popov et al. 2012). In addition, researchers should acknowledge, if they are sticking to just one of the terms in the presentation of their research, that they are citing research that uses the other term, or both terms interchangeably. Finally, if the researchers believe that the differences between teamwork and group work seem to be one of degree rather than kind, and that previous research from teams and groups (when used interchangeably or not) is applicable to their research, it makes sense to follow current practices and also use the terms interchangeably (e.g. Morgeson, Derue, & Karam, 2010).

This research will follow past research and use the terms "team" and "group" interchangeably. This is also the practice of the majority of articles in Table 2. This acknowledges that the research cited here mostly uses the terms interchangeably. I will use the definition of multicultural student group work used by Popov et al. above, however, I also acknowledge that there are degrees of difference between groups and teams, and that the definition could just as easily apply to multicultural student teamwork.

One important aspect to this research is that it follows students working on a team project. The students had never worked together before and were put together in a team (or group) for a short period time (2 months) in order to work collaboratively on a project. This work took place away from the gaze of the lecturer. Then, at the end of the project, the team disassembled.

#### **1.4 Outline of this Thesis**

There are eight chapters in this thesis. The first was is the Introduction, which provided my motivation for undertaking this research, an outline of the research context, and definitions of the key terms used in this thesis. The next chapter is the Literature Review, which critically analyses the literature on working in multicultural teams in higher education. Then it discusses the literature on intercultural competence and the development of intercultural competence. At the end of this chapter are the research questions. Following the Literature Review is the Methodology chapter. This chapter details the qualitative methods undertaken to collect and analyse the data, with discussion of their limitations. The paradigmatic stance is also explained. I then explain how I proceeded with the data analysis. This comprises of two main stages: an inductive analysis of the process data, followed by a deductive analysis using the *Global People Competency Framework* (Spencer-Oatey & Stadler, 2009), and Taylor's IC development model (Taylor, 1994b). The next chapter is the first of the two case study chapters, Case Study One. This chapter provides the results from the first group's teamwork project. It analyses three incidents that the team experienced and were then asked to reflect upon. Then there is the second case study chapter, Case Study Two. This is similar to the previous chapter in its approach, but with different participants, this chapter looks at the incidents that a second group experienced, and their reflections upon those incidents. Following the case studies is the Cross-Case Analysis, which brings together the themes that emerged in the data analysis in the two case studies, compares the findings, and then summarises the main findings from both case studies. The penultimate chapter, the Discussion, relates and compares the analysis with the wider literature on working in multicultural student teams, and also the wider literature relating to the development of

intercultural competence. It also discusses the limitations of this research, and the implications of the findings. Finally, there is the Conclusion chapter, which summarises the main findings of this research, and then suggests future directions for research and pedagogic practices based on the findings. At the end of this PhD are the References, and the Appendices, which contain the information and consent forms (Appendix One), and samples of the data collected for this research (Appendix Two).



## **2 Literature Review**

There are three main parts to this literature review. The first looks at the existing research on students undertaking intercultural group work projects. It will consider what previous research has found, its limitations, and other contextual factors that have been found to influence intercultural student group work. The second main part will look at the main theories on developing intercultural competencies (ICs), and empirical research on the development of ICs. Following this there will be the third and final section to this literature review, in which I will attempt to synthesise the findings from the two main areas of research covered, identify research questions and consider how this study may contribute towards existing knowledge.

### **2.1 Students and Intercultural Group Work**

The existing literature on students and intercultural group work is quite extensive but fragmented. It is fragmented in terms of location and research discipline, and also in terms of focus. I have organised the existing literature in order to present a coherent picture of what has been found in empirical studies on student group work in a HE context, with some references to group work in other contexts. The literature in this section will be organised into the following three, thematically different, parts:

1. Attitudes and dispositions towards working in multicultural teams.
2. Research on what happens during group work projects (i.e. group work processes).
3. Research that highlights other contextual factors.

This will then be followed by a summary of the main themes that can be surmised from this research of how students experience working in multicultural teams at university.

### **2.1.1 Attitudes and Preconceived Notions Towards Group Work**

Some literature in this context has been dedicated to understanding whether or not preconceptions of working in teams with students from different cultures can affect student's notions of intercultural group work. Summers and Volet (2008) found that home students in their study were more likely to start a group work project with a neutral or negative appraisal of student teamwork. However, they also found that these attitudes were not a self-fulfilling prophecy (e.g. a positive mind-set leads to positive outcome) because on average the students in their study initially had a more positive than negative attitude to group work, but their attitudes had become more negative upon completion of their projects, which is a concerning finding. Students (particularly home students) who have had negative experiences of group work previously, will also tend to view future group work negatively (Burdett, 2014; Sweeney et al., 2008). This finding however, does not mean that all students' attitudes towards group work are wholly negative. International students have been found to initially have a more positive view of group work than negative (Burdett, 2014; Summers & Volet, 2008). This suggests that there may be some differences for how international students and home students experience group work projects, but it is not entirely clear what causes these attitudes to be positive or negative in the first place.

#### ***2.1.1.1 Research on students' attitudes after group projects***

The research that relates to attitudes of students following an experience of working in a multicultural group project often comes from studies that have pre- and post-surveys, which are then compared for differences. One of the striking aspects of these studies is that home students' attitudes towards working in multicultural teams become less favourable after such teamwork experiences (Summers & Volet, 2008; Turner, 2009). In contrast to home students, research suggests international students tend to find group work a more positive experience (Burdett, 2014; Kimmel & Volet, 2010b; Summers & Volet, 2008). However, the reasons for this are not explained. It has also been found that, following group work projects, negative stereotypes towards people from other nationalities can still persist (Colvin, 2012; Volet & Ang, 1998). This worrying finding suggests that despite working together, students still may hold

stereotypical or prejudicial views, perceiving others as part of a national or regional cultural block rather than as individuals. Turner's (2009) research found that students would still stereotype and exhibit a sense of othering in spite of the students receiving intercultural training on how to work in multicultural teams. These findings are troubling for both educators and students because they suggest that students' experiences of intercultural teamwork could be regressive, particularly for home students. This would mean that the experience of working in multicultural teams could take HEIs further from developing global graduates. However, Montgomery (2009) found in her research context (UK HEI, students doing community projects) that students had relatively open attitudes to internationalisation and the opportunities it provided, certainly compared to ten years before. However, in her study she did also find that there were still vestiges of prejudice towards working with students from different cultures.

#### **2.1.1.2 *The effect of personal qualities, dispositions and skills on multicultural group work***

The personal qualities and dispositions of the individual team members can affect the outcome of the project. Woods, Barker and Hibbins (2011, p. 65) found that their students felt that these had more of an impact on the group work than the team processes themselves:

*They highlighted that effective multicultural group work is more about having the right attitudes, possessing relevant personality traits, having team building skills and learning about each other's cultures.*

From this research it can be concluded that one can observe that multicultural group work is strongly dependent on these factors. In a different study, Sweeney et al. (2008) found that multilingualism was positively associated with multicultural group work (as did Summers & Volet, 2008). It seems that such personal qualities and dispositions as those above are important, but it is unknown how they are developed or manifested. It is also unknown if lecturers are aware of how to ensure students develop these personal qualities and dispositions, and if they have the institutional support to ensure students can focus on developing them.

### **2.1.1.3 *Joining teams that are more or less diverse***

Group membership, that is to say, the choosing or being placed into a diverse or not so diverse team, can have an impact on the project. It can also affect the learning experience of the students regarding intercultural competencies. In some group work projects, it is the lecturer who assigns group members, however, in many cases the lecturer will allow the students to self-select. There is a strong amount of evidence that students prefer to work in groups with their “own people” (Turner, 2009, p. 248), that is to say, people with a culture similar to their own (Burdett, 2014; De Vita, 2002; Dunne, 2013; Harrison & Peacock, 2009; Kimmel & Volet, 2010b). To explain this Montgomery (2009) suggests that students are willing to forfeit the chance to broaden their horizons in favour of more security through working with students who they better identify with. In contrast, Strauss and U (2007) found that home students consider group work more competitively, and they have concerns over how working in a diverse team would negatively impact their grade (as does De Vita, 2002). In other research, Kimmel and Volet (2010b) found that students perceive working with friends from a similar background as less stressful and more fun. Each of these reasons could explain why students may prefer not to work in a group of people they do not know. It could also explain why they view working in multicultural teams negatively, because it is not their initial preference. However, this would clearly mean that if students were given an opportunity to self-select they would be less likely to experience learning to work with people from diverse backgrounds, and it would inhibit students from learning the ICs that would prepare them for the globalised workplace.

The desire to work in a diverse team is linked with personal qualities and dispositions. According to (1998, pp. 21–22) “Breaking out of one’s comfort zone and negotiating the crossing of cultural barriers requires deliberate, mentally demanding effort.” This echoes other research on the intercultural contact of home and international students in HEIs (Brown, 2009; Dunne, 2013). It is often only exceptionally motivated individuals who will voluntarily try to cross salient cultural boundaries. Students could potentially become more motivated to do this

if the benefits of working in multicultural teams were made clear and then reinforced. However, much of the research in this area has yet to investigate this.

### **2.1.2 Research on What Happens during Group Projects**

Previous research has found four main elements of multicultural group work in HEIs that can influence process. These are: free-riding (sometimes termed “social-loading”), English language skills, communication problems, and the problem of group members dominating group interaction. All of these aspects of group processes can have an impact on individual participation in group work, which can lead to differences in learning (see section 2.2.5). These aspects of group processes are subjective, reflecting the viewpoints and backgrounds of the participants (see Table 3, p39). After considering these themes regarding process, the methodological limitations of this literature will be considered, and the implications that it has for the findings on group processes.

#### **2.1.2.1 *Free-riding***

Free-riding is the process whereby one or two students within the group do very little work towards a group project but still get a good grade because the rest of the group does extra work to fill the gap. It is a perennial problem in student group work in HEIs, and is recognised not only in the research, but also in guides that advise students on group work (Levin, 2005). It is also recognised as a challenge in teamwork in other contexts (Adair, 2009; Hartley & Dawson, 2010; Levin, 2005). Free-riding is widely regarded as detrimental to group work processes and group work outcomes. Popov et al. (2012, p. 312) assert, “free-riding violates the whole idea of group work.” This phenomenon is not only a problem for students, but also for lecturers who may receive the feedback that the task they designed for six people was in fact completed by three, working double-time to cover for the other students, effectively undermining many of the perceived benefits of group work (Volet & Ang, 1998). However, not all studies of multicultural group work have viewed free-riding as an issue (Sweeney et al., 2008), although the researchers themselves were surprised when their research yielded this result. The problem with the research on free-riding, however, is that it does not go deep enough into the processes of free-riding. For example, it is unknown if free-riding is due to low

attendance at meetings, lack of personal motivation, disillusionment with the other members of the group, or other for other reasons. In short, as shown in section 2.1.2.5, the studies are limited by a lack of contextual information, and reliant on self-reports, as the researchers rarely observe the group work processes themselves or record their interactions.

If it is felt by a few of the students that the others are not contributing equally, then that could also lead to perceptions of lack of commitment. On the other hand, the less participative students may feel that they do not have a chance to contribute due to the dominance of the other students (discussed further in section 2.1.2.3). Some solutions to this have been offered. Maiden and Perry (2011) recommend setting ground rules, and Popov et al. (2012) support creating group goals to ensure that the team is inclusive. Identifying experts has also been suggested as a method to validate individual input (Franz & Larson, 2002). However, although this advice is useful, it does not guarantee that students will be aware of how to ensure even participation throughout their team projects.

#### **2.1.2.2 *English language Skills***

One of the impressions one gets from the literature in the areas of student experiences of working in multicultural teams is that one of the main differences between working in a multicultural team compared to a less diverse team is the challenges non-fluent speakers can present. Volet and Ang (1998, p. 27) found that native speakers demonstrate a “lack of goodwill” towards international students who have English language difficulties. The lack of understanding and tolerance towards the challenges for non-fluent English language speakers in group work has been recognised by both home and international students (Turner, 2009). Such communication problems can act as a barrier against intercultural relationships, and some research has found that students with weaker English language skills have felt excluded from group work processes (Burdett, 2014). This is indeed problematic, because if international students are side-lined due to language difficulties then their level of input will diminish, the group’s output of ideas will be less diverse, and those students will have less influence in, and possibly invest less time on, attaining a positive outcome for the group project.

Students need to learn to manage communication in a group where there are varying levels of English language fluency, in order to ensure that the group work is inclusive. English language fluency can cause problems, but it is yet to be described in research in this context how these problems manifest themselves, or the strategies one could or did employ when these problems occurred.

### **2.1.2.3 *Communication and dominant group members***

Communication in diverse, multicultural groups can be more difficult because communication patterns vary across cultures (Fitzgerald & Koester, 1993). Currently the literature on working in multicultural student teams, with its focus on self-reports, does not focus on the many different aspects of communication that are known to affect mutual understanding in intercultural interactions (see section 1.3.1) although it is evident in some the research on teamwork, as explained below.

Students complain about dominant group members during student teamwork projects (Turner, 2009), but their self-reports provide limited insights because it is unknown exactly what form this dominance takes (e.g. is it dominance of conversation, over the allocation of workload, or in the creative input?). Both Burdett (2014) and Sweeney et al. (2008) found that home students feel that they need to control the group (because they perceive that no one else is) and that international students have trouble contributing to group discussions. For home students, it could also be attributable to western attitudes towards how group communication should happen. Peterson (2012), for example, suggests that western students regard confrontational styles more normal, and Economides (2008) suggests that home students are uncomfortable with silence in group conversation. Non-western students' discomfort with confrontation could contribute to a lack of participation in group discussions. Similarly, western students' discomfort with silence could lead them to talking more to fill the silences, which could take time away from other students to share their thoughts. When asking international students, Sweeney (2008) and Woods et al. (2011) found that East-Asian students had difficulty managing conflict in group situations. There are some suggestions from this research as to how communication can be

affected when students from different cultures work together, but not necessarily enough to inform pedagogic practices to make students more aware of these processes.

#### **2.1.2.4 Opposing negative perceptions in intercultural group work**

The literature on intercultural group work between students has identified many opposing negative perceptions between international and home students, where each see faults in the others' group performance. In Table 3 compares perspectives on group work, adapted from Turner's findings (2009). Here there are opposing negative perceptions. The UK students felt that the international students had poor English skills, whereas the international students believed that the UK students were intolerant of L2 speakers. The UK students felt that international students worked too slowly, but the UK students were thought by international students to be impatient. From these findings it is also clear that neither side was fully appreciative (or cognisant) of the other's respective thought processes, which is a problem, and it indicates that the students had low levels of self-awareness of how they came across to others. It is a problem in the sense that if the students interpret differences in behaviour negatively, then that will be detrimental to group rapport. A further problem is that, instead of reporting on the learning of ICs through teamwork to manage these challenges, the students instead have only reported problems.

**Table 3 - UK students' views of international students, compared with International students' views of UK students (Adapted from Turner, 2009, p. 249).**

<b>UK students' views of Int. Students</b>	<b>Int. Students' views of UK Students</b>
Poor English skills	Intolerant of L2 English speakers
Quiet/ Seeking leadership and direction	Very direct; confrontational or aggressive
Not task-focused	Work and talk too fast; show-offs who are not always right
Cannot work individually	Unsupportive of the group; individualist
Seeking help from U.K. students	Difficult to get close to; will not socialize
Slow to complete tasks	Talk animatedly, impatient
Changing over time to become more participative or more "like us"	Cultural ambassadors



#### ***2.1.2.5 Methodological limitations of current research on group processes***

So far, the literature on group processes has seen the students report problems that they have encountered, but there has been little to no evidence of the researchers observing the group processes themselves. By processes, I mean witnessing the team's interaction in some way, as opposed to self-reports. To illustrate this further, Table 4 shows the research methods used in the available intercultural teamwork literature. As shown, only one of the 19 studies listed looks at interactional and/or process data (Ädel, 2011). All of the others, although they ask students (and sometimes staff) to reflect on group processes, rely on self-reports in order to better understand what can affect and influence group work processes. Some of these methods, such as focus groups, could also place a limitation on the findings due to participants providing responses that they perceive as socially desirable (Dörnyei, 2007). This highlights a limitation of the research so far on intercultural group work. The implications of this limitation are to some extent unknowable, because there has been limited research that incorporates both process data and self-reports as a form of triangulation (with the wider literature). It is possible that process data will reveal exactly what has been described by students, for example: free-riding, language and communication problems, and group members who dominate. However, in other contexts researchers have found self-reports can contradict process data (Schnurr & Zayts, 2013). So, researching the group processes of student intercultural group would contribute insights into the processes that students go through when working on a project, which could be different to self-reports.

**Table 4 - The methodologies of studies on student intercultural teamwork in HEIs**

Study	Methodology	Interactional/Process Data (Y/N)	Research Context
D'Alessandro and Volet (2012)	Survey	N	Australia
Dunne and Rawlins (2000)	Analysis of Feedback	N	UK
Peterson (2012)	Survey	N	USA
Maiden and Perry (2011)	Experimental Assessment Format	N	UK
Montgomery (2009)	Interview and Focus Groups	N	UK
Strauss and U (2007)	Survey	N	New Zealand
Turner (2009)	Learning Journals	N	UK
Liu and Dall'Alba (2012)	Survey	N	Australia
Sweeney et al. (2008)	Focus Groups	N	Australia
Popov et al. (2012)	Survey	N	Netherlands
Elliott and Reynolds (2014)	Interviews	N	UK
Ädel (Ädel, 2011)	Corpus analysis of group discussion board messages	Y	Sweden
Rienties, Nanclares, Jindal-Snape and Alcott (2012)	Survey	N	Spain
Kimmel and Volet (2010a)	Survey	N	Australia
Burdett (Burdett, 2014)	Interview	N	Australia
Summers and Volet (2008)	Survey	N	Australia
Woods et al. (2011)	Focus Groups	N	Australia
Kimmel And Volet (2010b)	Survey and Interview	N	Australia
Reid and Garson (2016)	Reflective Journals	N	Canada

### **2.1.3 Research that Highlights other Factors Influencing Student Teamwork**

There are several other factors that could influence student multicultural group work in a HE context that researchers have looked into. These will be discussed briefly here. These factors are: multi-level diversity, student life outside of group work projects, assessment and the role of the institution and the lecturer.

#### **2.1.3.1 *Multi-level diversity***

Volet and Ang (1998) found in their research that cultural misunderstandings that occurred were nationality based, however, ten years later, Montgomery (2009), found cultural differences based on disciplinary cultures were more salient to students. In her research the participants found that the causes of their conflict were not due to national culture, but task disagreements or disciplinary differences. Some of her participants viewed their discipline as a culture in its own right. This strong perception of the importance of disciplinary cultures could mean that they trump national culture in their salience to intercultural interactions. This is important to consider in research and justifies the definition of culture used for this thesis (see section 1.3.1). Culture is associated with one's social group. If, within a group, there are group members that are more strongly affiliated with their academic or professional discipline rather than their shared national culture, then that interaction could still be deemed intercultural. Also, it could be possible that, for example, both national culture and disciplinary culture are relevant to a misunderstanding. This means that the diversity in the group will be perceived to have multiple levels, hence multi-level diversity. The research detailed so far has only focussed on nationality or hemispheric differences as a form of diversity, but disciplinary background, age, gender and other forms of diversity could be relevant, both individually and simultaneously, to group work processes. However, multi-level diversity has so far only been considered as a marginal theme in the literature up to this point, so our understanding of the role it plays in this context is still limited.

### ***2.1.3.2 Factors that can influence intercultural group work beyond the immediate context of the project***

Beyond the teamwork project itself, students have other commitments as part of their life at university. There has been some research into this, but it is unclear how it could influence students' behaviour during their team projects. Students who are working part-time to supplement their income have been shown to be less engaged with group work (D'Alessandro & Volet, 2012; Strauss, U, & Young, 2011). A heavy academic workload, as was found by Woods et al (2011), can also have a negative impact on a student's commitment to a group work project. Another influencing factor in how students view multicultural group work is campus integration. Brown (2009) and Dunne (2013), amongst others, have found that students of different nationalities do not, for the most part, integrate on campuses. So, if students are not used to communicating with peers from different backgrounds in their social life, then this could mean that communicating with people from different backgrounds for the purposes of an academic group work project would also be unfamiliar to them. And, whilst the skills for making friends from different backgrounds are not identical to those required for completing group projects at university, they are not completely distinct. The impact of modern technology could also potentially influence group work processes. Students can now meet remotely and may also be connected to a group discussion via Facebook or Whatsapp. This means that project discussion could happen at any time, not just in scheduled meetings. This is an issue that has yet to be researched in this context.

### ***2.1.3.3 Assessment***

Assessment is a concern for most students, and is often the driving factor for students when it comes to a group work assignment (Maiden & Perry, 2011). Yet the impact of group work assessment, from a student perspective, on group work processes has not been greatly researched. However, there is some established thought. For example, the group mark is most often a reflection of the group's most able member, and group work has been championed for making it so (De Vita, 2002, 2007; Liu & Dall'Alba, 2012). There has been more written about assessment from the lecturer's perspective, which can still influence the process

of working in a team that the students go through. Group work assessment is a key challenge for lecturers who choose to implement it. De Hei, Strijbos, Sjoer, and Admiraal (2014), in their study of lecturers' attitudes towards student group work, found that the assessment of the quality of collaboration was one of the primary concerns highlighted by lecturers. The main difficulty that Clarke and Blissenden (2013) cite is deciding whether to mark individually or collectively. Ashraf (2004) shows that collective marking suits 'free-riders' more than the more diligent students. It is possible that some lecturers believe that learning the ability to manage 'free-riders' forms part of developing teamwork skills. So, it may be that a collective mark is implemented for that very reason. However, this may lead to students perceiving the assessment as unfair, which would be detrimental to their attitudes towards group projects. Another aspect of assessment is that it tends to focus on the group projects' outcome, not on the processes. This means that, for students, the emphasis is on completing the task, not on the process of collaboration in a multicultural team. It is possible that this approach will not facilitate IC development, because that is not the priority of the project. As other research suggests, the format of assessment that focuses on outcome over process is problematic as it indicates that lecturers should assess process when it comes to learning intercultural competencies (Reid & Garson, 2016).

#### **2.1.3.4 Institutional support**

Institutional support, in the form of guidance provided by the course leaders and lecturers, is another factor in group work that has been explored by researchers. The research has mainly focused on pre-teaching teamwork skills to students in order to prepare them for their assignments. Snyder (2008, p. 75) claims that "an often-overlooked yet critically important first step of collaborative assignments involves teaching teams about teamwork." De Hei et al. (2014) found that students need to be taught how to collaborate in a step-by-step way (i.e. a cumulative development of skills). Orr (2010, p. 311) supports this by asserting "students would benefit from more dialogue with lecturers about the challenges, complexity and nature of process." By 'process' she is referring to the processes required when working in a group, including each stage of the work. For Orr (2010) there is a need for institutional support for students regarding group work. However,

both Sweeney et al. (2008) and Turner (2009) found that teaching intercultural communication to students about to undertake group work projects failed to have a positive impact on students' attitudes and strategies of interaction. If this is the case, then the lecturer's role in affecting positive multicultural group work outcomes could be limited, since direct facilitation would not be practical in a large class with limited staff resources. Popov et al. (2012) suggest a way around this as follows: instead of pre-teaching students collaborative skills, the lecturer should empower students to solve their own problems and provide a shared script to reconcile differences. The idea of a shared script is to enable students to resolve conflicts themselves through providing some guidance through the conflict resolution process. This is perceived to be empowering for the students. However, not all students will feel equally empowered, particularly if they are new to the pedagogic expectations of a UK HE context.

A further limitation of shared scripts is that they can place too much emphasis on cultural dimensions as reasons for disagreement, when it could be interpersonal (Weinberger, Clark, Häkkinen, Tamura, & Fischer, 2007). Providing a shared script, whilst reducing group conflict, could prevent students from learning more about the underlying communicative processes that can affect intercultural group work (see section 1.3.1). This is because, although scripts may be able to guide students through team processes by supplying knowledge and information, about for example, conflict and cultural differences, there is no guarantee that they will trigger a process of reflection about these processes. Rather than providing a shared script, it may be more useful provide to questions to students, so that they can share reflections on their own underlying assumptions about team processes (both personal and intercultural), and then build a shared script themselves. In terms of post-project teaching, and helping students to reflect on their experiences of working in a team, there has been little research that I could find on this subject (with the exceptions of Reid & Garson, 2016; Turner, 2009). This is a significant gap, as reflection and reflective practices are considered to be very important in the learning process; indeed, for Boud, Keogh, and Walker (1985), reflection is the process that transforms experiences into learning. Therefore, further research is needed to see if reflection has a role to play in enhancing students' learning from

intercultural group work experiences, and the role the lecturer can play in the facilitation of this.

#### **2.1.4 Summary of Research (and its current limitations) on Students and Intercultural Group Work at HEIs**

This section has looked at the empirical literature on intercultural teamwork for students. It included looking at what happens before, during, and after a group work project. Then methodological limitations of the current literature were considered, and other factors related to my topic that other researchers have found. The salient findings of these sections are summarised in Table 5.

As the table indicates, there are various limitations to current research on multicultural group work in HEIs, including the impact of contextual factors, such as the degree discipline and teaching format (Sweeney et al., 2008, p. 125). The absence of analysis of process has also been noted (Maiden & Perry, 2011). In spite of this, many have uncovered similar empirical themes and findings. Studies of multicultural group work in HEIs have relied for the most part on survey and interview data (see Popov et al., 2012). This dearth of methodological approaches means that many questions surrounding multicultural group work processes have not been answered through observation in qualitative enquiries.

**Table 5 - Salient Findings and Conclusions from Literature on Student Group Work**

Section	Salient Findings and Conclusions
Attitudes and dispositions <ul style="list-style-type: none"> <li>- Effect of personal qualities</li> <li>- Forming of more or less diverse teams</li> </ul>	<ul style="list-style-type: none"> <li>- Students' experiences of group work are negative, but it is unknown what exactly those experiences are (Summers &amp; Volet, 2008).</li> <li>- Some personal skills facilitate group work (Sweeney et al., 2008).</li> <li>- Students prefer to work with students from similar cultural backgrounds (Turner, 2009).</li> </ul>
During Group Work <ul style="list-style-type: none"> <li>- Free-riding</li> <li>- Language Skills</li> <li>- Communication and Dominant Group Members</li> <li>- Opposing Negative Perceptions</li> </ul>	<ul style="list-style-type: none"> <li>- Free-riding is a common complaint about group work (Popov et al., 2012), but how it happens has not been researched.</li> <li>- Language skills are important in group work, but native speakers are not always tolerant of non-native speakers (Volet &amp; Ang, 1998).</li> <li>- Dominant group members can lead to uneven contributions (Burdett, 2014).</li> <li>- Students tend interpret differences in behaviour negatively, which reflects negative stereotypes (Turner, 2009).</li> <li>- Students had low levels of self-awareness of how they came across to others (Turner, 2009).</li> </ul>
Methodological limitations of research on group processes	<ul style="list-style-type: none"> <li>- Research on group work processes has been over reliant on self-reporting for insights into process, rather than collecting and analysing process data itself.</li> </ul>
Other contextual factors <ul style="list-style-type: none"> <li>- Multi-level diversity</li> <li>- Student life outside group work</li> <li>- Assessment</li> <li>- Institutional support</li> </ul>	<ul style="list-style-type: none"> <li>- It is important to consider multi-level diversity in group work, not to focus solely on nationality (Montgomery, 2009).</li> <li>- A heavy workload can negatively affect participation in group work (Woods et al., 2011).</li> <li>- Assessment must be perceived as fair, but this is challenging in a group work context (Ashraf, 2004).</li> <li>- Pre-teaching seems to have mixed results, whereas focusing on student empowerment may be more effective.</li> <li>- We need more research on reflection as a method of transforming group work experiences into learning (Reid &amp; Garson, 2016).</li> </ul>



## **2.2 Intercultural Competence**

This section will look at three aspects of Intercultural Competence (IC). Firstly, I will take a critical look at some of the more prominent theories of IC from Deardorff (2006), Bennett (1993), Spencer-Oatey and Stadler (2009), and Taylor (1994b). This will involve examining how they conceptualise IC, highlighting the models that they propose for IC development or what they perceive to be core ICs. This will however, be selective, and only aspects that are relevant to my own research context will be put to scrutiny. From this theory, I will summarise the main points derived from the different researchers about intercultural learning. I will then discuss participation in learning as it is relevant to this research context. I will then look into empirical studies that have used IC or look at the development of ICs. Once again this will be selective. Only studies that are of contextual relevance, that is to say studies that look at IC in either a teamwork or HE context, will be considered. Then, I will engage with studies that are of methodological relevance, those being studies that use qualitative and/or interactional data.

### **2.2.1.1 Definitions and terminology**

Intercultural competence is a field in which the terminology is acknowledged to be inconsistent and variable (Deardorff, 2006). The term ‘intercultural competence’ is sometimes substituted with “cross-cultural competence, global competence, inter-cultural competence, and global citizenship” by HE administrators (Deardorff, 2006, p. 247), while in research the terms ‘cultural intelligence’, ‘(inter)-cultural sensitivity’, ‘intercultural communicative competence’ and ‘intercultural communicative interaction competence’ are also used (Bennett, 1993; Byram, 1997; Spencer-Oatey & Franklin, 2009). Through searching and researching the various terminologies, I have settled on “intercultural competence” as an umbrella term for these terminological variations because it is the most widely used in research that takes place in a HE context.<sup>3</sup> How one constructs ‘competence’ and ‘culture’ is very important (discussed in Introduction, sections 1.3.1 & 1.3.2), as is how one selects the competencies one deems to be ‘intercultural.’ In this section I will attempt to

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<sup>3</sup> Resulting from a systematic literature review using EBSCO. See more details on this in section 2.2.6

extract some salient constructions of IC from the literature, with the aim that by the end of this literature review I will have a workable framework of 'intercultural competencies,' and their development, to use for the data analysis.

### **2.2.2 Models of Intercultural Competence**

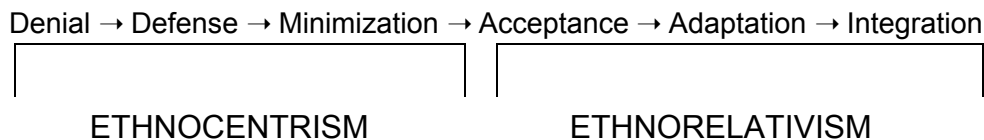
In this section I will look at three prominent models of IC for researchers and practitioners. Each has their merits and are widely cited and used by practitioners. The first that I will look at is a construct, originally developed by Bennett (1993) of a developmental model of intercultural sensitivity. This construct was then adapted into a widely used and commercialised instrument, the Intercultural Development Inventory (IDI), by Hammer, Bennett and Wiseman (2003). The second that I will look at was developed by Deardorff (2006) through asking prominent IC researchers and university administrators what they thought were the main elements of IC and how to research and assess it. The third theory and model of IC which I will consider here is *The Global People Competency Framework* developed by Spencer-Oatey and Stadler (2009). Then I will consider the final theory, which is Taylor's (1994b) model of Intercultural Competence Development.

#### **2.2.2.1 A developmental model of intercultural sensitivity and the IDI**

Bennett's Developmental Model of Intercultural sensitivity (DMIS) is often used in HE study abroad contexts (e.g. Janeiro, Fabre, & de la Parra, 2014; Stemler, Imada, & Sorkin, 2014), but is also more widely used in the form of the IDI (Intercultural Development Inventory) to measure an individual's orientations towards cultural differences within an organisational context (Cushner & Chang, 2015; Dejaeghere & Zhang, 2008; for a list of organisations using the IDI refer to Intercultural Development Inventory "Intercultural Development Inventory," 2016; Moloney, 2009), and occasionally that context has been students at university (Jon, 2013; Riley, Bustamante, & Edmonson, 2016). The DMIS comprises six stages that map an individual's progression from ethnocentrism to ethnorelativism (see Figure 3, p50). *Ethnocentrism* is an attitude or mind-set where the superiority of one's own worldview is presumed, sometimes without even acknowledging the existence of

others. In contrast, *Ethnorelativism* assumes the equality and validity of all groups. One who has reached the stage of Ethnorelativism does not judge others by the standards of one's own culture (Bennett, 1993).

**Figure 3 - Stages of Development of Intercultural Sensitivity** (Bennett, 2004, p. 63)



In one of Bennett's earlier writings on the DMIS (1993), when explicating his theory he states that it is based on "prevailing concepts in the field of intercultural communication" and "twenty years of teaching and training experience in intercultural communication with a wide range of learners." He further supports this with anecdotes and illustrations from cross-cultural learners and domestic cultural diversity. There are two important points from this. Firstly, Bennett's theory is neither systematic nor explicitly data driven (although it is later claimed he developed the model through grounded theory, see Hammer et al., 2003). Secondly, the DMIS is not designed for internationalised university campuses or multicultural teams. However, regarding this second point, this does not mean the DMIS cannot be repurposed.

Bennett states that his model describes a learner's subjective experience of development, and that the learner's attribution of meaning to intercultural experiences is important. He quotes Kelly (1963):

*A person can be witness to a tremendous parade of episodes and yet, if he fails to keep making something out of them..., he gains little in the way of experience... It is not what happens around him that makes a man experienced; it is the successive construing and reconstruing of what happens..., that enriches the experience of his life* (Bennett, 1993, p. 24).

This insight into attribution of meaning ('construing') to experiences is important. For Bennett, the growth of an individual within his framework, meaning the progression of a learner from ethnocentrism to ethnorelativism, is dependent on whether one constructs a reality capable of accommodating difference from

intercultural experiences. In addition to this, the autonomous development of intercultural sensitivity of cross-cultural experiences is deemed unlikely: “unfacilitated intercultural contact tends to be more entertaining (or destructive) than developmental” (Bennett, 1993, p. 34). From this, two important principles of DMIS can be taken; intercultural experiences need to be imbued with meaning, and learners need facilitation from instructors in order for that meaning to lead to the development of intercultural sensitivity. If neither of these are in place, the outcome on intercultural contact could be negative, with development either stalling or not taking place at all.

So far, I have not gone into great detail about the stages of the DMIS itself, this is because I am sceptical of the extent to which one’s progression along (or retreat from) the different stages can be measured in the context of my own research; in other words, during the course of a six-week multicultural teamwork project. In particular, this experience is not of the immersive kind (compared with study abroad) that Bennett’s model more is often applied to (in HE contexts). Bennett’s model also looks at cumulative development and is vague on the particular competencies required in order to progress. However, I do think that the two important principles behind the DMIS listed in the previous paragraph are relevant, to which I will add a third from Bennett’s theory: it is not important for a learner’s interpretation to be ‘correct’, but that the interpretation acknowledges differences (Bennett, 1993). This is important because it shows that the learner is moving from ethnocentrism, where there is only one type of behavioural norm, to ethnorelativism, where different types of behavioural norms are possible.

From Bennett’s DMIS, the Intercultural Development Inventory (IDI) was developed (Hammer et al., 2003). This is a fifty-item questionnaire which, it is claimed, will produce a profile of one’s intercultural competence, and can be used to assess teams (“Intercultural Development Inventory,” 2016). The IDI is essentially an intercultural competence assessment tool that provides a snapshot of an individual, or an organisation’s intercultural competence. Hammer and his colleagues offer guided development plans and consulting services once the assessment is completed. The instrument itself has been questioned for its

susceptibility to social desirability bias, and its cross-cultural transferability is also in doubt (Greenholtz, 2005; Spencer-Oatey & Franklin, 2009). Researchers who wish to use the IDI are also not permitted to perform concurrent validity tests between the IDI and other measures (“Intercultural Development Inventory,” 2016). This means that researchers (including myself) who might consider using the IDI could be discouraged from using it, because it prevents them from triangulating the findings from the IDI with other measures. Limited access to the items of the IDI, because it is a proprietary instrument, also veils it from further scrutiny. Furthermore, although many organisations and researchers have used the IDI, the financial commitment is quite high. Researchers using the tool are required to pay for training to use it, and then have to pay for each participant who uses it. This prevents me, and presumably other researchers as well, from employing it if they do not have access to funding.

To conclude on Bennett’s DMIS and the IDI, it is clear that the model has merits, but both it and the IDI are unsuitable for my research purposes, due to the research context and the conditions of using the IC assessment tool. That said, there are three principles from the DMIS that any understanding and analysis of intercultural competence should consider. These are that:

1. Learners need to imbue intercultural experiences with meaning to lead to the development of intercultural sensitivity;
2. Learners need facilitation from instructors in the interpretation of that meaning in order to assist with that development.
3. It is not important for a learner’s interpretation to be correct, but that the interpretation acknowledges differences.

#### **2.2.2.2 Deardorff’s Delphi process to clarify IC theory and arrive at two models of IC**

The aim of Deardorff’s work on IC was clear from the title of her first major article on the subject, *Identification and Assessment of Intercultural Competence as a Student Outcome of Internationalization* (Deardorff, 2006). In this she outlines how she came to arrive at two models of IC specifically for the context of HE internationalisation and the students who attend their institutions (although the

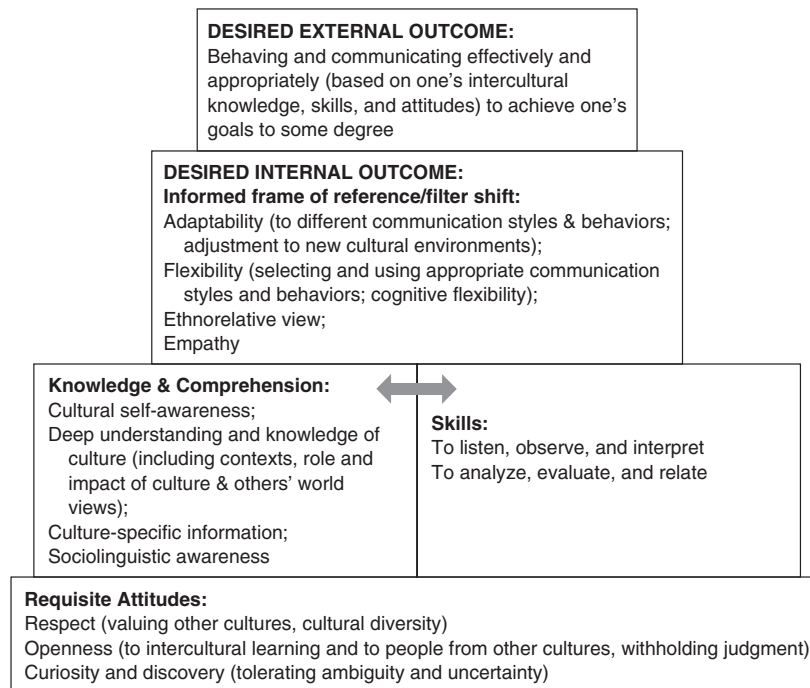
title of her unpublished thesis specifies that it is a US HE context). This is the first widely cited IC model(s) that is contextualised to students in HE (though it has been less widely applied in research). There are few researchers who have published using it in a HE context (Auschner, Laumann, & Gröschke, 2015), as well as in the context of teacher education (Ko, Boswell, & Yoon, 2015), although recently many case-studies have shown the model employed in teaching IC in HE (Deardorff & Ararasatnam-Smith, 2017). Firstly, in this section the methodology Deardorff used to establish her models of IC will be considered, and then the models themselves.

The method that Deardorff used has both strengths and limitations when applied to my own research context. Deardorff used the Delphi method, which is a process for structuring anonymous communication within a larger group of individuals in an effort to achieve consensus among individuals. Experts are sent questionnaires, which the facilitator (in this case Deardorff) summarises and sends around again, repeating the process until a pre-determined level of consensus has been reached (Linstone & Turoff, 1974). This seems appropriate for trying to reach consensus among experts over a technical term (Intercultural Competence) and what it constitutes, because at the time of Deardorff's research (and arguably now also), there was little consensus on how IC should be defined amongst IC researchers (Deardorff, 2006, p. 242). In this sense the method of theory building is more systematic and replicable than that Bennett's model (1993). Also, the participants that Deardorff asked to take part were HE administrators (n=24) with an interest in IC, and IC experts (n=23) (IC scholars and trainers). This shows that the participants should be situated to comment on either what constitutes IC, or on how it should be applied to a HE context, or both. However, the methodology also has its limitations. The first being the participants, who were all based in the US with the exception of two (from the UK and Canada respectively). Deardorff (2006) herself acknowledges this as a weakness, because the sample is biased towards what western experts agree IC to be. Another limitation is that the designation of someone as an IC expert is problematic, particularly with the bias towards westerners in the selection of participants. Proponents of the Delphi method warn against having participants from diverse backgrounds because it

can result in misunderstanding (Linstone & Turoff, 1974). This method therefore thus limits the amount of intercultural communication that can take place in a discussion of how to define intercultural competence. A further limitation on participants is that all the administrators who took part were from US universities, which once again is a limitation because the ICs that they are looking to develop in order to raise their students' employability might not apply to job markets in other countries. This limitation could potentially be rectified if the Delphi method were repeated in a different context with a different population of IC researchers and university administrators (but there could not be much within culture variance within the sample). However, as yet it has not been, which raises questions about the validity of the first iteration of the models. The second limitation of the Delphi method is that it constructs a theory from the top down; that is to say, from what experts think *should* happen in intercultural interaction. It does not build it from the ground up; i.e. it does not look at instances of intercultural interaction in which competencies are demonstrated (however, that is judged) and then build theory to meet, and contrast with, what the competencies the experts agree on. In light of these strengths and limitations, the two models will now be considered.

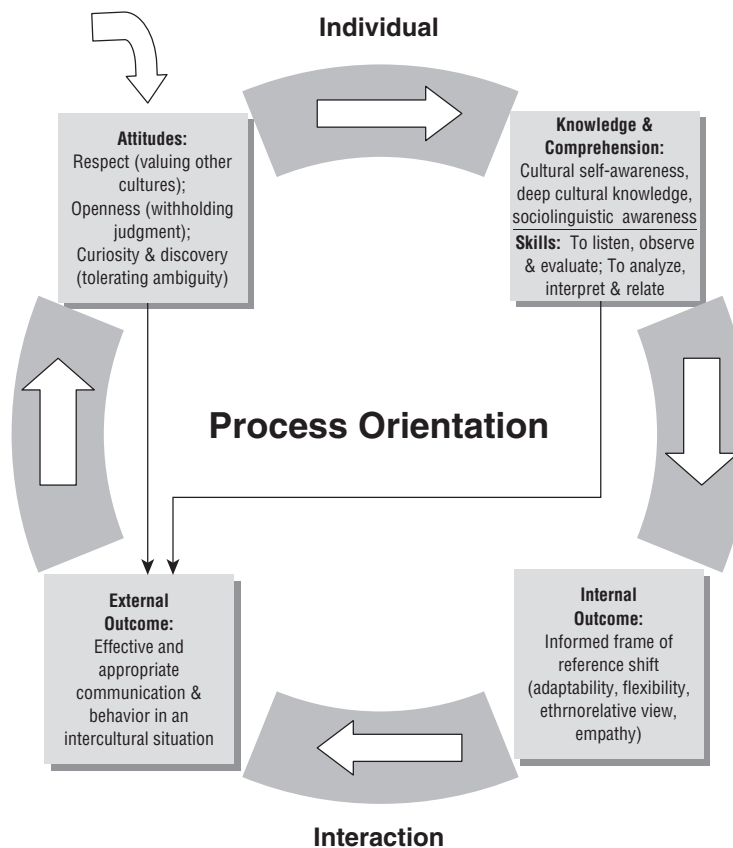
The first model (Figure 4) constructs IC as a pyramid which, read from the bottom upwards, starts with attitudes, on which the individual develops skills and gains knowledge. This then develops the IC within the individual (Desired Internal Outcome), to then increase the probability of achieving the desired external outcome. In this model the extent of individual development can be measured in the bottom three levels, and then the success of the interaction(s) could be measured against the extent to which the desired outcome(s) are achieved. Figure 5 contains less detail, but essentially the same information presented as a cyclical process. Also, the areas involving interaction, or the individual, are clearly delineated. The small arrows within the cycle demonstrate that possessing the requisite attitudes, knowledge and skills can reduce process, and enable one to reach the desired outcomes faster. In other words, the higher the level of IC, the sooner the interaction will result in the desired outcome.

**Figure 4 - A Pyramid Model of Intercultural Competence (read from the bottom – up) (Deardorff, 2006, p. 254)**



- Move from personal level (attitude) to interpersonal/interactive level (outcomes)
- Degree of intercultural competence depends on acquired degree of underlying elements

**Figure 5 - A Process Model of Intercultural Competence (Deardorff, 2006, p. 256)**





I have already said that this model is designed for a HE context, so there is overlap between my own research context and Deardorff's. However, the theory must also be malleable and suitable for the context of a teamwork project. In the teamwork projects, I will be focusing on the interactional processes within the team. This demands that this theory must be further investigated, and more questions are asked of how intercultural interaction in multicultural teams takes place, and how in such an interaction evidence of effective and appropriate communication to achieve one's goals can be pinpointed, whilst also gaining insights into whether the participants' behaviour is based on intercultural skills, knowledge and attitudes. Unfortunately the Delphi technique, as acknowledged by (Deardorff, 2006, p. 253): "leads to more general results rather than more specific ones." This means that, whilst the model works as a guide and has value in its first iteration for establishing a general consensus amongst IC researchers and relevant HEI administrators, it does not provide the detail or specificity required for the qualitative research I plan to undertake. Deardorff's argument is that the model is general because it allows researchers and practitioners to then adapt it to their own context. However, I would argue that it is too general. What you see in the figures above is effectively all there is to the model. None of the individual components are extensively theorised or exemplified in her work. This does not make it suitable for the type of qualitative research that would require examples and theory as a guide to the researcher.

#### **2.2.2.3 The Global People Competency Framework by *Spencer-Oatey and Stadler***

The introduction of this framework here marks a departure in some ways from the frameworks considered above. Firstly, the genesis of this framework is not from IC researchers, but from a consultancy company WorldWork who promote ten factors for international success, in which they fit twenty-two competencies based on "current research and the practical experience of people operating internationally" ("WorldWork," 2012). This first iteration (which is still employed by WorldWork) was then taken and developed further by Spencer-Oatey and Stadler. They reformulated it into four clusters with twenty component competencies (see Figure 6) based on the analyses of qualitative data from the

eChina-UK Programme (Spencer-Oatey & Stadler, 2009), which was a collaborative project between the Higher Education Funding Council for England and the Chinese Ministry of Education (“eChina-UK,” 2006). A second dissimilarity with the previous frameworks is that the authors attempt to illustrate each competence in their framework “one or more of the following:

- How the competency manifests itself;
- How the competency is important or needed;
- How the competency can be displayed in behaviour;
- What problems may occur when the competency isn’t present” (Spencer-Oatey & Stadler, 2009, p. 4).

This framework therefore provides researchers and educators with some specifics as to what the different competencies entail, particularly the first and third bullet points. As such, rather than providing vague terms for competencies that could be subject to multiple interpretations, there is evidence supporting what each competency entails.

**Figure 6 - The Global People Competency Clusters (adapted from Spencer-Oatey & Stadler, 2009)**

		<u>Cluster Component Competencies</u>
<u>Competency Clusters</u>	Knowledge and ideas	<ul style="list-style-type: none"> <li>• Information gathering</li> <li>• New thinking</li> <li>• Goal orientation</li> <li>• Synergistic solutions</li> </ul>
	Communication	<ul style="list-style-type: none"> <li>• Communication management</li> <li>• Language learning</li> <li>• Active listening</li> <li>• Attuning</li> <li>• Building shared knowledge and mutual trust</li> <li>• Stylistic flexibility</li> </ul>
	Relationships	<ul style="list-style-type: none"> <li>• Welcoming strangers</li> <li>• Rapport building</li> <li>• Sensitivity to social/professional context</li> <li>• Interpersonal attentiveness</li> </ul>
	Personal qualities and dispositions	<ul style="list-style-type: none"> <li>• Spirit of adventure</li> <li>• Self-awareness</li> <li>• Acceptance</li> <li>• Flexibility</li> <li>• Inner purpose</li> <li>• Coping</li> <li>• Resilience</li> </ul>

The *Global People Competency Framework* (GPCF) is the youngest of the three models considered so far, and as such has not been critiqued to the same extent by other scholars. It has been used, and evaluated positively in academic settings (Messelink, Maele, & Spencer-Oatey, 2015). However, the theoretical underpinnings for it have only been considered by Holliday (2011). He offers two criticisms of the examples cited in the GPCF. He argues first that the examples of competencies are instances that could happen within a culture or organisation rather than between, so they are not necessarily “intercultural.” This relates to a broader discussion of how the term “culture” within the term “intercultural” is constructed (see section 1.3.1). The other criticism that Holliday offers is that the framework falls into the trap of “starting with an apparently neutral positivism that nevertheless leads to prejudice” (Holliday, 2011, p. 21), of which the first step is defining culture along the line of national differences as if nationality were a neutral/value-free category. There are several problems with this critique; however, this discussion will start with the valid element of his first critique. Many examples from GPCF are indeed framed through the interactions of two different nationalities (British and Chinese). This reflects the fact that the framework is grounded in data from Sino-British collaboration. In such a collaboration, which is for the most part between two main parties, their conflicts will be self-defined by national division, as it happens to reflect the main composition of the two groups involved. Since this is a first iteration of the GPCF, it is understandable that without further data to illustrate (or contest) the competencies presented, this criticism will remain valid. The same is also true of the criticisms of Deardorff’s model, since it is also the first iteration. The second criticism is more problematic because it assumes that the starting point of the authors of the GPCF is that cultural difference is defined by national culture. It is understandable that if the examples are framed by nationality e.g. “the British team” and “the Chinese team”, then one might read the GPCF and understand their conceptualisation of culture as such. However, other Global People publications do define culture in other ways, such as occupational culture and organisational culture. Also, in the literature around the eChina-UK Programme, diversity is described as multi-layered:

*Each of the projects had team members that were diverse in a large number of different ways, including: professional expertise (e.g. academics, technologists), subject area expertise (e.g. Applied Linguistics, Educational Psychology), nationality (e.g. British, Chinese, French, American), geographical location (e.g. Britain, China, Austria), linguistic expertise (monolingual speaker, fluent bilingual speaker, limited bilingual speaker), expertise in eLearning (e.g. very experienced, novice), beliefs about eLearning design (e.g. re linearity, collaborative learning, problem-based learning) (Spencer-Oatey & Tang, 2006, p. 1).*

This suggests that although the case studies in the GPCF illustrate contrasts between individuals from the Chinese and British organisations, this was in the context of more complex cultural dynamics due to other forms of diversity. From these two criticisms highlighted some of the limitations in the presentation of the GPCF. However, the argument that the GPCF encourages a neutral positivism that leads to prejudice (defining culture only by nationality) is not very strong because what Holliday describes as the first step towards this is not actually the step taken by Spencer-Oatey and Stadler.

Five years after the publication of the GPCF, an adapted version of it came to fruition through collaboration between King's College London and the University of Warwick. This competency framework was designed for a HE context, with the aim of preparing graduates for the global workplace (Reid & Spencer-Oatey, 2013). It is, however, a framework designed to be implemented in the curriculum, and not for research purposes. The framework sets intercultural competencies against three stages of development: transition, participation and employability. There are ten competencies described: information gathering, flexible thinking, flexible behaviour, rapport building, language learning, making yourself understood, attentive listening, self-awareness, personal strength and spirit of adventure. All of them are identical or very similar to competencies listed in the GPCF. However, in the background to this framework, it seems that it was created for the purpose of designing intercultural competence modules or embedding intercultural competence elements into pre-existing modules. The King's-Warwick framework also does not provide examples of the competencies in use, making it less suitable as a guide for researchers. However, it does identify "students participating in mixed ethnicity classes and group work" as a HE context for the learning of intercultural competencies (Reid & Spencer-Oatey, 2013, p. 130). This is relevant

to my own research context because, although the King's-Warwick framework is not suitable for research, it does indicate that the panel of lecturers and administrators involved in its creation saw the content of the GPCF as adaptable to a HE context, including group work projects. Furthermore, as shown with the aims of each of the IC theories, teaching and research have always been very closely related in this field, and in effect a teaching instrument of IC can also be considered for its research potential.

Several aspects of the GPCF recommend it to research for my own context. It has been applied to UK (and Belgian) HE contexts, it is more data driven than the other frameworks considered, and this framework provides some detail on the areas of interaction where it is possible to look for evidence of effective and appropriate communication to achieve one's goals. It also suggests what types of behaviour based on intercultural skills, knowledge and attitudes are desired for success in global teams, which is the work place that HE staff intend to prepare students for. For these reasons I will be using it in my own research as the leading theoretical framework. However, as a compositional framework, it needs to also be combined with a developmental framework in order to be applicable to researching not just the range of ICs, but also how they may be developed. The developmental model I have elected to use is discussed in the next section.

#### ***2.2.2.4 Taylor's model of developing IC***

In the previous section two developmental models (Deardorff and Bennett) and one compositional model (Spencer-Oatey & Stadler) were discussed. Both of the developmental models were found to be challenging to implement for this research because of how they were developed, their suitability for research purposes, and how they conceptualised development. For this research the type of development analysed will be individual instances of learning. However, both Bennett and Deardorff's models assumed a cumulative form of development and were furthermore unsuitable as primary analytical frameworks for other reasons, detailed in the sections above. Instead a compositional model was selected for its data-based approach and more promising applicability. One of the limitations of a compositional model of intercultural competencies is that, while it is possible to

be certain of which competencies students should develop, how they might develop them is unclear. So, because the GPCF is a compositional framework, it requires developmental theory (i.e. how someone develops intercultural competencies) to complement it during the analysis.

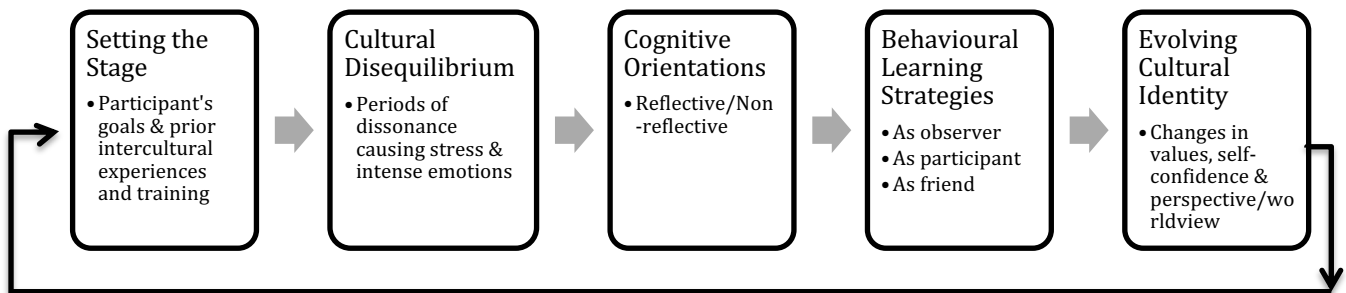
Taylor developed this model after critiquing other IC development models for assuming that learning takes place, without observing *how* the learning takes place (much like group work projects). Taylor's model for developing intercultural competence draws from transformative learning theory by Mezirow (2000), in which there are ten stages that one must undergo in order to reach transformation. Taylor applied this model, in combination with other IC development theories and with interview data, into a five-stage process (see Figure 7). This is an ABC model (affective, behavioural, & cognitive) for development. According to Taylor's model, the experience of cultural disequilibrium triggers learning (an affective element). The individual's interpretation of this disequilibrium is affected to some extent by their goals in the interaction, and their prior experiences. Then, following the initial disequilibrium, the individual can either critically reflect on the event (see section 2.2.3 below), or not reflect (a cognitive element). Then, as a result of these reflections the individual will develop three different types of responses, either as an observer, a participant, or as a friend (behavioural element). These behavioural responses are intercultural competencies (observation skills, appropriate participation skills for a certain cultural event, and building relationships/friendships with people from other cultures). Taylor later condenses this theory into three essential stages for intercultural learning:

1. Precondition to change/catalyst for change (readiness to learn and experience of cultural disequilibrium)
2. The process (affective response and critical reflection)
3. The outcome (behavioural changes/learning of intercultural competencies)

(Taylor, 1994a, p. 396)

In his model Taylor's focus is on the developmental aspect, and he does not theorise in depth on different intercultural competencies. This is also due to the limitations in his data (see below), and the extent to which a range of intercultural competencies were observable.

**Figure 7 - Taylor's conception of process of learning to become interculturally competent (based on Taylor, 1994b, p. 162)**



In his research, Taylor interviewed people who were deemed to have some level of intercultural competence already. All of them had lived and worked abroad, and were, in Taylor's estimation, interculturally competent. This was beneficial because, by using participants who had already undergone this process, Taylor was able to theorise on the entire process, rather than only a few sections. However, the limitation of this sample is that Taylor would be unable to see participants at the different stages of development, since they were instead reporting back on the whole experience, and not undergoing those experiences in situ. The other limitation is that his framework was conceptualised for those who had already lived abroad or would live abroad in the future. This means that there is a question as to whether it is applicable to student group work contexts. There is also the question of whether the competencies listed by Taylor are relevant to intercultural teamwork projects, and whether there are enough of them (only three) to be able to capture the range of competencies one may need to work effectively in a multicultural team. However, with this being the case, it is possible to replace the behaviours listed by Taylor with the competencies in the GPCF, since the GPCF was a framework of competencies for working in multicultural teams.

There are several important aspects to the learning process in Taylor's model that are important for analysis, which will be discussed further here. The first is that Taylor (1994b) believes that in order to develop IC, one must display a readiness for change, or a readiness to learn. This suggests that a participant must possess a level of openness and engagement. The same could also be true for student teamwork projects, where low levels of participation and engagement could act as a limitation on learning new competencies. Second, Taylor's model seems to hinge on encountering cultural disequilibrium because this is "the core experience (not the totality) that the stranger must transcend to achieve a higher state of cultural awareness and self-awareness" (Taylor, 1994a, p. 392). When Taylor is describing cultural awareness, he is referring to awareness of one's own culture as well as the culture of the other (Taylor, 1994a). This experience will have an affective component (i.e. an emotional response, see Taylor, 1994b). It is also important to note that the experience is not the totality of the process, because the individual must also proceed through the other stages of the model. The next stage of the model is the reflective process. Taylor writes several times about the importance of reflection, and what it means to the process; "critical reflection is central to the process of learning a more inclusive worldview" (Taylor, 1994a, p. 402), and "the reflective orientation... represents deep critical thought in becoming interculturally competent" (Taylor, 1994b, p. 164). For Taylor reflection "is defined as a deliberate assessment of the justification for our beliefs, ideas and feelings" (Taylor, 1994b, p. 170). He comments further that reflection is the "conscious connection between their cultural disequilibrium, possible behavioural learning strategies, and necessary change towards competency" (Taylor, 1994b, p. 170). So, through reflecting an individual will make connections between the incident and their beliefs. They will then think how they could behave in response to it, and by doing so, develop intercultural competencies. This process needs to be repeated, but can be difficult to analyse as Taylor says the stages of development are "on-going practices not occurring in any identifiable order" (Taylor, 1994b, p. 172). However, successful change is identifiable, and is seen as equivalent of self-actualisation, a movement from low to high self-awareness and cultural awareness (Taylor, 1994b). This is not guaranteed to happen, because the individual must be ready to learn, and to assimilate the



experiences into their meaning perspective. However, that same experience could be rejected instead of assimilated (Taylor, 1994b, p. 158). This reiterates the point above, that the experience of cultural disequilibrium is not enough to trigger learning, but the process of reflection also needs to take place. This process, and the model above, provide a quite detailed and workable analytical framework for analysing incidents of intercultural learning. However, the trigger of the process, which is the cultural disequilibrium, and can also be described as a 'critical incident', still needs to be conceptualised further. This is done below.

### **2.2.3 Identifying Challenges or Critical Incidents for IC development**

Critical incidents are essential to intercultural development. Many different scholars have theorised critical incidents and have used different terminologies to describe this concept. Kolb and Kolb (2005, p. 194) describe them as 'learning incidents,' which are comprised of "the conflict, differences and disagreement." Taylor's framework characterises these incidents as 'cultural disequilibrium' (Taylor, 1994b). However, this would be too narrow a definition for the context of working in multicultural teams. Agar (1994) describes them as 'rich points,' which is a point where two different conceptual systems come into contact, and one is "misunderstood or understood falsely," (Belz & Müller-Hartmann, 2003). However, limiting the definition to misunderstandings would mean that the range of challenges that could be considered as learning incidents would be quite narrow. Furthermore, it is possible that a learning incident lasts longer than a moment of misunderstanding. A misunderstanding or conflict would be just the start of the learning process. Indeed, in the Belz and Müller-Hartmann (2003) study, the rich points are just the start of the learning process. After identifying a rich point there is then a meta-commentary where the participants reflect. Additionally, in Reid and Spencer-Oatey (2013, p. 133), their intercultural competency framework "assumes the provision of support to participants that enables them to reflect on their own intercultural experience." This still does not define what a conflict or challenge could mean, but it does assume that the experience of a conflict or challenge is not enough to ensure the learning of intercultural competencies. There needs to be a range of other behaviours that accompany and follow an incident.

Tripp (1993, p. 8) asserts that a 'critical incident' is not an event itself, but the "interpretation of the significance of an event" These incidents then "become invested with new meaning which was transformative of understanding and practice" (Tripp, 1993, p. 105). A challenge with defining critical incidents is that these incidents are not discrete, and it can be "very difficult to define the chronological and perceptual boundaries of these events" (Cope & Watts, 2000, p. 113). This means it is complicated for a researcher to understand what constitutes a critical incident, as it may not appear as an exact event to their participants. A further challenge is that the learning from a critical incident may be tacit and hard to communicate (Cope & Watts, 2000). So, during a group work project, a critical incident would be an event (or a series of events) to which at least one of the participants attaches meaning, which would then be transformative in understanding and practice. However, it could prove difficult for the participants to clearly state what the event was, and also what the learning they gained was. There are other factors that could exacerbate this, which will be explained below.

The first factor involves understanding if the students have the skills to learn and develop intercultural competencies. In several developmental theories of intercultural competence, key skills are outlined in order to facilitate learning. These include the ability to observe, listen, analyse, reflect, accommodate and evaluate (see Deardorff, 2006; Spencer-Oatey & Dauber, 2017). The second factor is the learning context: ideally a multicultural teamwork module at university will provide a context for the growth and development of intercultural competencies for students. However, if the students do not have the prerequisite skills above, or if they are not used to employing them towards the development of specific skills for working in multicultural teams, then their learning from critical incidents could be limited. Another factor that could limit opportunities for learning is the manner in which the teamwork project is assessed. Kolb and Kolb (2005, p. 194) state that "learning is best perceived as a process, not in terms of outcomes," but it is still a process that includes "feedback on the effectiveness of their learning efforts." However, if the assessor is not a witness to the learning process (common in this context, see Reid & Garson, 2016), then the only way to assess the learning

may be through assessing the outcomes of the process, which is usually in the form of a report or presentation. If the process of acquiring intercultural competencies is not present in the evaluation, then the students will not be aware that these were competencies they needed to focus on improving. Indeed, if the content of the project is particularly challenging academically, and the deadlines are tight, there may be no opportunity for the students to think about and reflect on the development of intercultural competencies at all.

Although the factors above could influence the extent to which students learn from their experiences of working in multicultural teams, it is not certain which factors have more or less influence, or any at all. So rather than being a reason not to use critical incidents, they instead add to the questions that need to be asked regarding students' development of intercultural competencies through teamwork. Learning is a complex and subjective process, and critical incidents can help participants to learn, although communicating that learning, and defining the critical incident can be challenging. It is necessary to better understand this so that better pedagogical decisions can be made when assigning teamwork projects in order to maximise the students' potential learning.

#### **2.2.4 Summary of Factors Important for Learning Intercultural Competencies**

In the theories of IC above, there were several key factors described that contribute to understanding how ICs are developed. This section will consolidate and present these important factors that IC researchers have highlighted in order for IC development to take place. These factors will be organised into three sections. The first will discuss what IC researchers have said about the required preconditions and context for learning. The second will discuss the triggers or incidents that can stimulate learning. The third will discuss the processes that need to take place after there has been a trigger or incident to stimulate learning.

#### **2.2.4.1 *Preconditions and Context for learning***

There are several preconditions that ideally need to be met in order for the development of ICs to take place. The first is support. Both Bennett (1993) and Reid and Spencer-Oatey (2013) assert that intercultural learning needs provision of support. Bennett (1993) suggests that a lack of support can result in intercultural contact being destructive rather than formative. Reid and Spencer-Oatey (2013), in a HE context, assume that their own suggested framework for learning intercultural competencies will be accompanied with support to enable students to reflect on their intercultural experiences. Both of these suggest that for students to develop their intercultural competencies there needs to be a facilitator to guide their learning. The second precondition is that a learner needs to have some essential skills to help them develop ICs. These are ability to observe, listen, analyse, reflect, accommodate and evaluate (see Deardorff, 2006; Spencer-Oatey & Dauber, 2017) and a readiness to learn (Taylor, 1994). If they do not have these skills, then their learning may be limited. Or it may be that they need to develop these skills first before they can really develop their intercultural competencies. The third precondition concerns the context for learning. The first aspect of this, which is almost self-evident, is that the context needs to be intercultural in some way. The second, which is more relevant to group work projects, is that those facilitating the learning should focus on the process, not the outcomes (Kolb & Kolb, 2005). This means that group work assignments that are assessed for their outcomes (e.g. a written report or presentation), are not ideal for helping students develop ICs unless there is also some monitoring of process.

#### **2.2.4.2 *Incidents that can stimulate learning***

There are relatively few constrictions on the incident itself that can trigger the learning process when it comes to IC development. There are two main attributes that it must have according to the literature. The first, as Taylor (1994a) asserts, is that the incident should trigger an affective response. This means that the participant in the event should experience some sort of emotion from the incident.

The second attribute is that there should be an experience of cultural disequilibrium in order to stimulate learning. The incident should therefore be different in some way to the participants' cultural norms or expectations. However, while these two attributes may be enough to trigger learning, they do not guarantee that learning will happen. For this to happen, firstly, the preconditions stated above need to be met, and also there needs to be a process of reflection on these experiences after the event (see below).

#### ***2.2.4.3 Processes that need to take place after there has been an incident to stimulate learning***

After the incident has taken place, there are two processes that need to take place, before one can judge the outcome (IC development). The first is that the participant needs to construe meaning out of the event. (Bennett, 1993). The meaning that they construe, and their interpretation of the event does not need to be correct, but it needs to acknowledge differences. This could be in the form of looking for alternative explanations to what they usually expect or accepting that they may not be able to understand the reason yet. The second process is the process of critical reflection, which Taylor (1994a) asserts is central to the process of learning. This process of reflection needs to be facilitated, as it is one of the preconditions. This process is part of what turns the incident that triggers learning into a critical incident. As Tripp (1993, p. 105) states when discussing critical incidents, the critical incident is not the event/incident itself, but the "interpretation of the significance of the event" which occurs afterwards. Once these processes have taken place, then it may be possible to view an outcome (Taylor, 1994a). These could possibly be behavioural changes (skills development), new knowledge, or attitudinal changes. In short, the development of intercultural competencies.

As mentioned in section 1.3.2, there are relatively few frameworks which theorise the development of ICs (Spencer-Oatey, 2018). As such the most transferable to my research context (Taylor's model for IC development) will be applied in this research. However, the different factors required for learning that were

summarised above will also be considered in the analysis and in any conclusions made from this study.

### **2.2.5 Participation and Learning**

Participation is relevant to learning in two ways. The first is participation in the sense of experiencing, or being present, during an event. Many different theories of learning see experience as core to the process of learning (e.g. D. Kolb, 2015; Mezirow, 1997). The depth of their involvement in the experience (i.e. how much meaning they attach to it), can be a factor in how much they learn from an experience. The second way that participation is relevant to learning is that *how* someone participates (how they experience an event, if they say anything, what they say etc.) can influence how and what they learn. Two learners may have a similar experience, but could learn something different from it (Billett, 2016). It is difficult to judge both how much meaning a learner attaches to an event, and how they are participating.

This can be illustrated with an example. In a team, you may have two members who are participating, but one is talking a lot, and the other is barely saying anything. Both team members are participating in the event but may learn something different due to how they are participating. Just because one participant is talking more than the other does not mean that they are involved more deeply. That talkative student could be going off-topic, whilst the silent group member is ruminating on a strategy to get the other team member to focus on the task at hand. On the surface it may seem that one team member is participating more because they are talking, but it is the silent group member who is actually more engaged in thinking about improving team processes. This type of situation creates a dilemma for analysing the extent to which someone is participating, and how they are participating. Some analyses of individual participation in teamwork have focussed on surface-level clues for participation, such as time-talked, and what an individual uses their talking-time for (e.g. managing group processes, proposing ideas etc.) (see Group Interaction Analysis

research such as Bales, 1966; Rackham & Morgan, 1977; Reed, Metzger, Kolbe, Zobel, & Boos, 2018). Analysing surface-level participation can be useful in understanding group roles, dynamics, and contributions to group discussions (although it does face challenges in terms of reliability and intersubjectivity see Reed et al., 2018). However, this method of analysis alone does not provide enough insights into the extent to which participation has an effect on learning.

Reflection is a useful strategy that can be used in order to gain insights into a student's level of participation (e.g. how meaningful an experience was to them), and how they were participating if there are no clues from their speech (or lack of) and body language. Reflection is commonly considered to turn experiences into learning (Boud et al., 1985; Kolb, 2015). By recording the reflections of students taking part in group work projects, it will be possible to understand their thought processes during that experience (how they were participating), which can provide insights into how meaningful they found different events (the depth of their participation). Both of these types of participation (surface level participation and participation as interpreted from student reflections) can then contribute to the researcher's understanding of IC development from student experiences of working in multicultural teams.

#### **2.2.6 Findings from Empirical Studies of IC of Contextual Relevance**

This section will look at findings from empirical studies of intercultural competence. These articles focus on the development of ICs in a teamwork context. Firstly, I will present the results of a systematic literature review of such articles. Then, I will focus in detail on five studies, and how they may be relevant to my research.

Articles on intercultural competence are many, but disparate. IC has been applied in a wide range of fields; education, nursing and customer service to name a few (e.g. Ihtiyar, Ahmad, & Baroto, 2013; Koskinen & Tossavainen, 2003; Lee, Poch, Shaw, & Williams, 2012). Any attempt to read all of the literature mentioning IC would be a mammoth task, and each method of searching for literature on IC will

have its own limitations. For my own reading of the IC literature I chose to perform a systematic literature review, while also following the trail of citations that were applied to contextually relevant IC theories as performed in the IC analysis above (section 2.2.2). The systematic literature review involved using the search function on the EBSCOhost database (“EBSCOhost,” 2016) (EBSCOhost, 2016) to search for all articles that had the words “Intercultural” and “Competence” in the title of the article. The limitations of this method will be considered below (section 2.2.7.2), but first I will outline the findings.

The initial search produced 602 articles, which, when narrowed down to academic journals, gave 482 results. Of these results, 196 were duplicates, leaving 286 articles. However, only 222 articles were usable because the EBSCO search engine did not pick out all of the duplicates and some of the articles, although listed as articles, were in fact book reviews, magazine articles and in some cases were articles written in a foreign language inaccessible to me. The 222 articles were then reviewed for their keywords, academic field, methodology, research context, and the IC theory that was applied. This review produced 79 articles in which the research took place in a HE context. The review also produced several articles that used a methodology that was relevant to my own research aims and will be considered in section 2.2.7. In Table 6 there is an overview of these 79 articles, which I will now detail further. The most common geographical context for research in IC in HE is the US. In terms of research field, HE educational policy is the most frequently occurring, and study abroad is also a quite well researched topic in IC research. The papers on HE educational policies were most often theory papers that considered which IC framework to possibly implement at an institution. The methodology for IC research in HE was most often quantitative, and although interviews were used 15 times, five of those occurrences were in mixed methods research, in combination with surveys. None of the IC research papers in a HE context used audio-visual data. The frequencies of subject terms reveal that some of the main concerns of researchers are intercultural communication, second language acquisition and cultural awareness. This is more revealing and shows that a concern of researchers looking at IC includes communication and cultural awareness. In none of these studies (and indeed in



only 2 of the 222) are the words “team” or “teamwork” keywords. The word “group” does occur, but only in relation to “focus group.” As for the IC framework that the studies use, the most common is to have no specific framework (the theory papers often do not explicitly advocate a framework). However, when they are used, Byram’s is the most popular, and applied to a language learning context. Bennett and Fantini’s frameworks are associated with quantitative studies and of the three occurrences of Deardorff’s model, two are theory papers and the other concerns study abroad. What is shown from this is that the research has not focussed on multicultural teamwork in a HE context, but also the research, being predominantly quantitative and self-reporting, has not looked at the processes of IC in group work interactions.

**Table 6 - Overview of IC articles on HE (N=73)**

Ranking (N) Category	1	2	3	4	5
Research Context by country	USA (22)	Non- specific (8)	Germany (8)	UK (7)	China (5)
Research Field	HE Educational Policy (31)	Education (19)	Study Abroad (17)	Foreign Language Teaching in HE (3)	ICC in HE (3)
Methodology	Survey (28)	Theory Paper (24)	Interview (15)	Focus Groups (5)	Blog (3) Document (3)
Keywords	Intercultural Communication (36)	Second Language (32)	Higher Education (29)	Cultural Awareness (27)	Foreign Countries (26)
IC Framework	None (16)	Byram (11)	Bennett (6)	Fantini (4)	Deardorff (3)

Although these studies do grapple with IC in a HE context, unfortunately there is not a lot within this literature from which it is possible to derive guidance on how to analyse developing intercultural competence in relation to student teamwork in HEIs. This is because, similar to what was shown in section 2.1 where research

on student teamwork has not focussed on IC; the research on IC in HEIs has not yet focussed on teamwork.

### **2.2.7 Findings from Empirical Studies of IC of Methodological Relevance**

Deardorff (2006, p. 241) advises that researchers should use “a mix of quantitative and qualitative methods to assess intercultural competence, including interviews, observation, and judgment by self and others.” In reality, however, there is little variety used in researching IC. The findings from the systematic literature review of the 222 articles show that quantitative methods are the most commonly used (31% of studies), and interviews are the second most common form of research method (25% of studies). Observation and judgement by self and others are far less common, with only ten studies using observation and/or judgement as part of their research methodology. This means there is very little literature to draw upon if one wants to use observations of processes and reflections upon those processes in order to gain insights into IC in teamwork. However, research by Hammer (1984), Koskinen (2005), Koskinen and Tossavainen (2003), Lázár (2015), and Rosenberg, Richard, Lussier and Abdool (2006) does offer some insight into how observations, and other qualitative methods, can be integrated into IC research.

We will start with the earliest research by Hammer (1984), because its methodology is the most striking. In his research Hammer measured the effects of an IC workshop on university students’ level of IC development. He video recorded the workshop, and then two judges rated the subjects’ IC based on behavioural observation measures. This type of research harkens back to early laboratory experiments of group work by (1966), which had the limitation of not enquiring as to the participants’ interpretation of events. Hammer (1984) concluded that the workshop did not significantly improve the American participants’ intercultural competence, however, it is not known if the participants also felt the same. It is possible that the students were developing IC, which they displayed in later interactions, but that it was not manifested in their behaviour during the workshop.

Koskinen's two articles (Koskinen, 2005; Koskinen & Tossavainen, 2003) derive from an ethnographic study of a nursing exchange between British and Finnish nurses. In this case, observation was supplemented with other ethnographic methods, including group interviews, research diary notes and analysis of learning documents. Although the context is completely different to my own, this research yielded the interesting result that the growth of IC amongst the nurses was hindered by lack of institutional support, in this case from the cooperating organisations. This is a finding that is unlikely to come to the surface in quantitative research unless you specifically look for it. Section 2.2.2.1 showed that Bennett insisted that IC learning has to be facilitated, so it is possible to apply this to a broader sense beyond the individual facilitator, and to institutional support to facilitate the development of IC. Koskinen's observations support this. Koskinen and Tossavainen (Koskinen & Tossavainen, 2003) also found that students' desire to become interculturally competent was the foundation for gaining IC, which supports the motivational or dispositional aspect of all the four IC models considered.

The research by Lázár (2015) took place in a classroom context, however, unlike the previous research in this section, the observations were of an online collaboration project between students (EFL learners) from four different countries. The students were younger than those in HE (16 years old) however, and the tasks they were given were typical of EFL (self-introductions, presenting your hometown etc.). Furthermore, the observations were limited in that Lázár (2015) only had access to observe the students in one of the countries, although he did have access to the online communication of all the participants. Lázár found that the students did develop IC over time, with a turning point being the teachers' facilitation of communication patterns. The students were encouraged to adopt the AAA of communication (Answer/appreciate, Add something, Ask a question) when in a dialogue (note that this is not specifically an intercultural communication strategy). He also found that students formed friendships and valued the discoveries they made about each other's culture. Lázár used Byram's work (1997) to frame his analysis. The context here is quite different to my own,

the students were younger, and the communication was aimed at learning about each other and their cultural differences, rather than at the completion of a team project that does not explicitly demand that their cultural differences be discussed. However, once again observe the importance of the role of facilitation is emphasised, even to the extent of modelling communication patterns, as key in the development of IC. It was also shown that that a skill that is not specifically designated for intercultural situations, the AAA of communication, can still be effective.

The final piece of research, by Rosenberg et al. (2006), is once again from a quite different context. The research took place in doctors' surgeries in Canada. The researchers recorded the visits of 24 patients and then showed the videotapes back to the patients and doctors separately, who both commented on important moments identified by the participants or the researchers. This methodology appeals to me because it involves both the recording of process, but then also provides the participants with a chance to reflect on the process after reviewing it. The reflection also provides the participants with the opportunity to see themselves from another angle, so they are not only recalling their own thoughts, but can also observe how they presented themselves. Rosenberg et al. (2006) employ Identity Management Theory (IMT) in their analysis (Cupuch & Imahori, 1993). The strength of IMT that Rosenberg et al. (2006) highlight is that it takes a subjectivist perspective, as opposed to an objectivist perspective (see, for an objectivist perspective, Hammer, 1984). This is important when considering that the points of development (critical incidents) are subjectively interpreted, so it is important to have a framework that incorporates this (see section 2.2.3). The other advantages that they mention is that IMT argues that interpersonal communication competence can be generalised to Intercultural Communicative Competence (ICC), so once again there is a blurring of the distinction between competencies for intercultural situations and competencies for interactions where culture is not deemed to be significant. In Rosenberg et al.'s study, they found that although the patients and doctors did not have any specific training in IC, they did still demonstrate some of the knowledge, skills, and motivation to learn IC, although improvement was needed. Some of this was based on what the

doctors and patients mutually regarded as a successful intercultural encounter. However, some of the judgement of the ICs were more objectively analysed by the researchers, based on how the framework (IMT) informed their analysis. This suggests that although the methodology lends itself to a subjectivist perspective, the researchers blend these perspectives with their own, and those of the IMT framework. Although this pragmatic method of interpretation is not explicitly mentioned by Rosenberg et al. (2006), it does fit with the aims of their research – to improve patient-doctor encounters when the patients are from diverse backgrounds.

#### **2.2.7.1 *Implications from these studies***

From these five studies there are several lessons to carry into my own research. The first study by Hammer (1984) exposes the limit of relying solely on *objectivised* observations in order to ascertain if participants have developed intercultural competence. Koskinen and Tossavainen (2003) and Koskinen (2005) found through ethnography that the development of IC needs institutional support and individual willingness to learn. Lázár (2015) found through observation and analysis of online communication that IC can be developed with very explicit facilitation of communication patterns. Finally Rosenberg et al. (2006) used a methodology that gave other insights into the epistemological perspective for researchers looking at instances of IC development. Their methodology lent itself to a framework with a subjectivist perspective; however, their analysis, in practice, drew from different perspectives and became more pragmatic. This is important to consider because in using the GPCF as an analytical framework I will need to consider the participants' views of their own roles in the teamwork, their views of each other, my own interpretation and the guidance from the framework itself. I will also need to bear in mind the pragmatic aspect of deriving findings from this research that are of use to practitioners.

#### **2.2.7.2 *Limitations of this systematic literature review***

There are several limitations to performing this sort of literature review in order to better understand the research on intercultural competence. The first, as mentioned in section 2.2.1.1, is that there are several different terms for

“intercultural competence.” Indeed, searches for “intercultural sensitivity,” “cultural intelligence” and “intercultural awareness” also yielded a large number of results. However, those results were of less relevance to a HE context, so I did not take the time to review them to the same extent. Cultural intelligence (CQ) studies, for example, most often use the ‘CQ framework’ (Van Dyne, Ang, & Koh, 2009), which involves self-reporting in order to create a four-factor model of cultural intelligence, and is more of an assessment tool than a framework for researching IC. A further limitation, one could argue, is that just because the term “intercultural competence” is not in the title does not mean the research is not about “intercultural competence.” This is true. Although for some reason EBSCO does not have many articles (nine) listed with “intercultural competence” in the subject terms, there are over a thousand abstracts that contain the term “intercultural competence.” This then brings in another consideration; it is not the case that the literature on IC is too narrow, but that it is too vast to review comprehensively. Another limitation of this form of literature review is that there is potentially no threshold to prevent low quality research from entering into the review. This is not true if the articles are reviewed conscientiously. In reviewing the articles conscientiously, through looking at the methods, sample sizes, whether the research methodology was rigorous and if the conclusions were justified, it was possible to discount the research that made unwarranted claims. The systematic literature review also works as a form of triangulation for the research and IC theories reviewed previously, because I was able to note their prevalence in other research and learn what other contexts the theories had been applied to. All in all, the review provided a thorough background to the different avenues of IC research.

#### **2.2.8 Conclusion to IC Frameworks and Empirical IC Research**

In this section has looked at four theories of IC, and empirical studies of IC. Each of the four frameworks have their strengths and limitations, but I decided to work further on the GPCF by Spencer-Oatey and Stadler (2009) as it has more relevance to my own research context, and combine it with the developmental model by Taylor (1994b). When considering the IC literature relevant to my own context, it was found that there was very little that was directly relevant. More relevant were

the methodological approaches of researchers in different contexts. They underlined the need for a pragmatist approach, facilitation in the development of IC and the importance of adopting a methodology that allows for a subjective perspective. From here, and this consideration of IC, I will try to synthesise what has been written on multicultural student teamwork with IC theory, which will then help to shape the research questions.

## **2.3 Linking Intercultural Competence and Teamwork at University**

This section of the literature review is an extended conclusion of what has been discussed in the previous sections, where I will try to synthesise what has already been covered in previous research in IC and in intercultural student teamwork. The results of this synthesis will have limitations, that is to say, there is quite a gap in current research. That said, according to previous research, there do seem to be some areas of teamwork and IC that intersect. Following this, I will also try to reach some conclusions on the methodological weaknesses and strengths of previous research. After this I will present the research questions that I have developed to guide the research. Then I will underline further why I think this research will add knowledge to the research fields of IC and intercultural student teamwork.

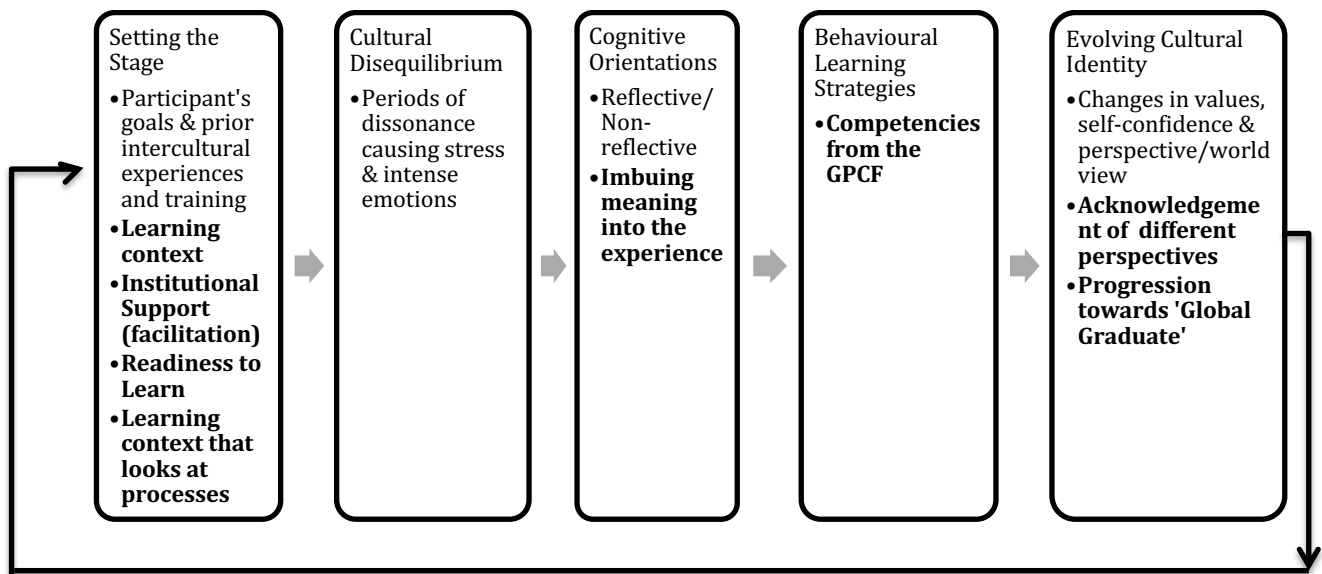
### **2.3.1 Synthesis of Teamwork Research and IC Frameworks**

At the outset of trying to synthesise these two areas, it is important to set out two limitations of previous research that will hamper any efforts to construct a framework prior to conducting further research. The first is that the vast majority of student teamwork research is reliant on self-reports. The second is that there has been very little overlap between IC research and research on intercultural student teamwork. This means that, whilst it is possible to synthesise the research from the two fields, the conclusions will be somewhat speculative at this point. Indeed, what has been found and can be concluded from previous research will remain limited until it is tested with the data collected and analysed in later chapters.

In Table 7, I have suggested competencies from the GPCF (Spencer-Oatey & Stadler, 2009) that may be applicable to the various findings from research on students working in multicultural groups. The findings from previous research can be linked with a wide range of intercultural competencies. The salient findings that are highlighted in bold in the table are those that link with competencies. However, at the moment this is limited by the lack of previous research and does not represent theory building. There are some findings that do not have an apparent possible link with the GPCF. Some of these are contextual, such as the assessment of teamwork projects, and pre-teaching teamwork skills. However, one aspect that has not received much focus is reflection. It could be argued that within the Process Model by Deardorff (2006, see Figure 4), and Bennett's DMIS, reflection is implicit through the emphasis on the ability to evaluate intercultural experiences. Indeed, the creation of, and research into, competency frameworks means that researchers have undertaken a process of reflection that competencies are needed to improve intercultural experiences. However, this is not the same as explicitly stating in the model that the people who experience intercultural communication need to reflect on it. In this aspect Taylor's model is distinct because, for him, reflection is explicitly part of IC development. Reflection is needed as part of intercultural contact, but also there needs to be some facilitation of this reflection and meaning making (also suggested by Bennett, 1993). It could be argued that reflection is a learning process and not necessarily a competency. However, if a framework is designed with the aim of people learning IC, and indeed if one is to be adapted for learners, then reflection, and the ability to reflect on intercultural experiences when working in teams, needs to be part of what is considered for the development of ICs. Below is Figure 8, which could integrate factors involved in developing ICs (see section 2.2.4) with the GPCF with Taylor's intercultural competence development framework, so that it is relevant to the institutional context and aims of students in higher education. The additions/amendments are in bold. However, as with Table 7, at this point it is possible changes through linking the model with the relevant research and has yet to be effectively tested with data of students developing IC from working in multicultural teams.



Figure 8 - Taylor's intercultural competence development model with suggested changes in bold



**Table 7 - Competencies from the GPCF that are possibly related to intercultural student group work**

Section	Salient Findings	Possible Relevant Competencies according to the GPCF (Spencer-Oatey & Stadler, 2009)
Attitudes and preconceived notions <ul style="list-style-type: none"> <li>- Effect of personal qualities</li> <li>- Forming more or less diverse teams</li> </ul>	<ul style="list-style-type: none"> <li>- Students' experiences of group work are negative, but it is now known what exactly those experiences are (Summers &amp; Volet, 2008).</li> <li>- Some personal skills facilitate group work (Sweeney et al., 2008).</li> <li>- Students prefer to work with students from similar cultural backgrounds (Turner, 2009).</li> </ul>	<u>Personal Qualities and dispositions</u> <ul style="list-style-type: none"> <li>- Resilience</li> <li>- Coping</li> </ul> <u>Relationships</u> <ul style="list-style-type: none"> <li>- Welcoming strangers</li> <li>- Rapport Building</li> </ul>
During Group Work <ul style="list-style-type: none"> <li>- Free-riding</li> <li>- Language Skills</li> <li>- Communication and Dominant Group Members</li> <li>- Opposing Negative Perceptions</li> </ul>	<ul style="list-style-type: none"> <li>- Free-riding is a common complaint about group work (Popov et al., 2012), but how it happens has not been researched.</li> <li>- Language skills are important in group work, but native speakers are not always tolerant of non-native speakers (Volet &amp; Ang, 1998).</li> <li>- Dominant group members can lead to uneven contributions (Burdett, 2014).</li> <li>- Students tend to interpret differences in behaviour negatively, which reflects negative stereotypes (Turner, 2009).</li> </ul>	<u>Communication</u> <ul style="list-style-type: none"> <li>- Language learning</li> <li>- Language adjustment</li> <li>- Stylistic flexibility</li> <li>- Building of shared knowledge and mutual trust</li> </ul> <u>Personal Qualities and Dispositions</u> <ul style="list-style-type: none"> <li>- Acceptance</li> <li>- Self-awareness</li> </ul> <u>Relationships</u> <ul style="list-style-type: none"> <li>- Sensitivity to social/professional context</li> </ul>
Other Contextual factors <ul style="list-style-type: none"> <li>- Multi-level diversity</li> <li>- Student life outside group work</li> <li>- Assessment</li> <li>- Institutional support</li> </ul>	<ul style="list-style-type: none"> <li>- It is important to consider multi-level diversity in group work, not to focus solely on nationality.</li> <li>- A heavy workload can negatively affect participation in group work (Woods et al., 2011).</li> <li>- Assessment must be perceived as fair, but this is challenging in a group work context (Ashraf, 2004).</li> <li>- Pre-teaching seems to have mixed results, whereas focusing on student empowerment may be more effective.</li> <li>- We need more research on reflection as a method of transforming group work experiences into learning (Reid &amp; Garson, 2016).</li> </ul>	<u>Knowledge and ideas</u> <ul style="list-style-type: none"> <li>- Goal orientation</li> <li>- Synergistic solutions</li> <li>- Information gathering</li> </ul>

### **2.3.2 Synthesis of Methodological Limitations and Possible Future Directions**

When the methodological approaches of previous research in both IC and multicultural student teamwork were considered, it was evident that there were some commonalities. The first and most striking was that in both fields the majority of the studies were reliant on self-reports. In the field of multicultural teamwork, I could find only one that looked at interactional data between participants. Similarly, in the systematic literature review of IC literature I could only find ten studies out of the 222 that incorporated observations of interactions or behaviour as part of their methodology. IC research has also had more of a focus on quantitative research. This means that there is a lack of fine-grained, qualitative research of IC, and theory building in this area has suffered from this.

It is clear there is a dearth of the sort of research methodologies listed above in both of these fields. A lack of research in one area however, does not automatically justify research to fill the gap. The justification for researching IC in multicultural student teams has been provided in both the Introduction chapter and throughout this literature review. It will also be touched on further in section 2.3.4. Here I will justify a few of the methodological principles to take forward, based on the review of the previous literature. The reasons for looking at interactional data when researching IC in student teamwork are as follows:

- Self-reports in student teamwork limit the findings of this sort of research to problem-reporting and before-and-after tests of (what could broadly be defined as) student experiences in working in multicultural teams.
- Self-reports in IC research mean that one can claim to have intercultural competencies, or that an IC assessment tool claims to show who does, but it is not possible to see if IC is incorporated into one's behaviour beyond this.
- Interactional data allows the researcher to look in more detail at occurrences of problems that students self-report, but it also allows the researcher to see if there is anything more going on in the teamwork than the problems that are reported. This provides an opportunity to observe not just problems, but also instances of good practice, which the students themselves may not be aware of.

- Interactional data allows the viewing of how the learning of ICs is manifested in behaviour when teams are working towards a task, rather than what they report afterwards about what happened.

Interactional data is not the answer to all of the problems associated with this sort of research, and indeed it does also have its own limitations (e.g. scalability and representativeness). However, it can be strengthened through triangulation with self-reports and participant reflections on group processes because, (as will be considered in the Methodology chapter) the observer of the interaction will also have a subjective view on what happened. However, there have not been occurrences of this sort of triangulation in the research into intercultural student teamwork, and only a few in IC research itself. Moreover, of those that have occurred in the IC research, the participant reflections are not of teamwork practices, but dyadic interactions in doctors' surgeries (see Rosenberg et al., 2006), which means that they will have a very different theoretical framework and different research questions. With this in mind, and the challenges of synthesising IC and student teamwork research, below, in the penultimate section of this chapter, I will outline the main research questions, with some explanatory notes below them.

### **2.3.3 Research Questions**

I want to perform longitudinal on research into the ways in which multicultural student teams complete their assignments and projects. Unlike previous research I want to look into the black-box and analyse their interactions. I want to find out how and when students use, or feel they need to use intercultural competence in this context. Then at the end of their project I want to find out and facilitate their reflections and sense-making of their teamwork experiences. In order to do this my first research question is quite descriptive:

RQ1. How do students act in multicultural teams when given a project to complete?

It also has the following sub-questions:

RQ1a. What tasks do the team have to handle and what issues arise in relation to them?

RQ1b. In what ways and to what extent were the observed experiences of students similar to those in self-reporting research?

The second research question links with IC and teamwork:

RQ2. In what ways does teamwork promote the development of intercultural competence?

With the sub-questions:

RQ2a. What intercultural competencies emerge as important in multicultural teamwork?

RQ2b. What elements of teamwork projects can encourage the development of IC competence?

RQ2c. How, and to what extent, are the GCPF and Taylor's developmental IC model valuable frameworks for exploring this? Are there other aspects of learning IC not covered by these models?

#### **2.3.4 How this Study will Contribute to Existing Knowledge**

The justification for this research, in terms of preparing students for the current demands of the globalised workplace, has already been outlined above. There are, however, three other aspects to it, which I believe will contribute to our existing knowledge:

1. Observing teamwork interactions will contribute to our understanding of what actually happens during teamwork projects.
2. Applying the GPCF will contribute to our understanding of the learning of ICs for students in a HE context.
3. Facilitating reflection on teamwork for the participants will aid our understanding of student thought processes during and after multicultural teamwork projects.

### **3 Methodology**

This chapter has six parts. I will first outline the ontological and epistemological perspectives that guide my research. Then, I will detail my research design, taking into consideration the guidance offered by the methodology literature on this area (see section 3.2). Then, I will go into detail on what took place prior to and during the data collection, my reflections on that process, my position within the data, and the decisions I had to take during this period (sections 3.3-3.5). This will be followed by a final section (3.6) where I look at the analytical procedures that I followed once the data collection was complete.

#### **3.1 Ontological and Epistemological Principles**

This research will follow the principles of pragmatism, which rejects subscribing to one particular paradigm (Biesta, 2010). Instead, I want to focus on the use-value of the research results (Brinkmann & Kvale, 2015) and that “knowing does not exist for its own sake, but for the sake of doing” (Shalin, 1986, p. 11). This means that in my methodology, following from Cohen, Manion and Morrison (Cohen, Manion, & Morrison, 2007, p. 23), I will employ the methods that “are necessary and relevant, to meet the needs of the research rather than the allegiances or preferences of the researcher, and in order to answer research questions.”

Although pragmatism implies that I should not subscribe to one particular paradigm, it does not mean that I am uninterested in research that locates itself within one particular paradigm in order to make sense of the world and conduct research. Indeed, in the literature review I considered research from a range of paradigms that may be useful to my own understanding of IC in multicultural student teams. Pragmatism allows one to blend paradigms. For example, Lamont (Lamont, 2010, p. 12) identifies her research as drawing from “the pragmatist tradition, a pluralism of perspectives and communication styles.” This suggests that although she takes a pragmatist position, her understanding of reality is constructivist and subjective; that is to say, truth is socially negotiated (intersubjective) and this truth is then constructed into knowledge. I agree with this notion and I will adopt an approach which considers the subjectivity of the participants, and the intersubjectivity of their views with each other and my own. However, this needs

to be strengthened by incorporating methods to understand the extent to which the conclusions that I, the researcher, draw from a social interaction to be valid for those involved (Berg & Lune, 2012). I also need to make sure that I focus on the use-value of the research, i.e. that it contributes to practitioners' understanding of how to incorporate IC learning into group work projects. However, I also accept the fallibilist epistemology, that is to say that my claims from this research will be uncertain to some extent, and corrigible (Schwandt, 2006).

### **3.2 Research Design**

In this section I will outline the research design that I have chosen and will implement for the research. It is a methodology that is designed to answer the research questions above (Literature Review, section 2.3.3) and is somewhat exploratory due to the lack of knowledge around this subject. After outlining the research design, I will go into some detail about the individual elements of this methodology, and consider the guidance offered by other researchers who have used these elements. Following this, I will provide some short reflections on the research design, before moving into section 3.3, where I will discuss getting access to the field.

Table 8 below outlines the steps of the research process. Stages 1-4 describe what I undertook prior to collecting data. Stages 5-8 identify the data collection phase, and then stages 9-11 concern the analysis of the data that has been collected. The notes at the end of each row refer to the relevant section of this chapter (and the literature review).

The research design I have chosen is a case study approach. I will analyse two cases individually and then compare them with one another. It will be longitudinal, qualitative research. The research design will also incorporate a retrospective element in the sense that the participants will also be invited to reflect back on their experiences. Each of these elements will be considered in the immediate sections below.

**Table 8 - Research Procedure**

	Stage	Action	Notes
Pre-Data	1	Read previous research in this area for understanding of what to incorporate in methodology.	See Literature Review Chapter
	2	Consider research design and sampling	See 3.2.2 & 3.2.3
	2	Seek and receive ethical approval for research	See 3.3.1
	3	Negotiate access with university module leaders	See 3.3.2 & 3.3.2.1
	4	Recruit participants to take part in the research	See 3.3.3
Data Collection	5	Video record and observe group meetings	See 3.2.4
	6	Pick out clips salient to group processes from all the meetings	See 3.4.4
	7	Conduct individual interviews, using clips in a stimulated reflection pattern	See 3.2.4
	8	Ask for permission to access Facebook/online communication	See 3.4.6
Analysis	9	Write interview transcripts and send to participants – for any input/corrections	See 3.6.1
	10	Code the data inductively	See 3.6.2
	11	Code the data deductively using the GPCF and Taylor's Intercultural Development Model	See 3.6.3

### 3.2.1 Case Study Approach

For this research I want to look inside the black box of what goes on in multicultural student teams. Case studies suit this purpose as they show “the complexity of social life” (Blaxter, Hughes, & Tight, 2010, p. 74). Case studies can also be used in both theory testing and theory building, both of which I will be doing (Berg & Lune, 2012). Using more than one case is also recommended as it “is often considered more compelling, and the overall study is therefore regarded as being more robust” (Yin, 2014, p. 57). I have chosen two cases from the same context, which is two teams from the same STEM course, working on the same project, so that the data from one case study can be compared with the other (Burgess, Pole, Evans, & Priestley, 1994). Case studies do have some limitations and problematic aspects. Researchers warn that the generalisability of



findings from case studies should be handled carefully (Keddie, 2011; Mikkelsen, 2005; Wolcott, 1995). I may not be able to claim that much is generalisable from the two cases, but I can hope that the findings are transferable; that is to say that another researcher or practitioner may find value in my research, and that they can transfer its findings to their own context (Duff, 2008). The other problem with a case study approach is that its complexity, especially the richness of the data that I am looking for, can make analysis difficult. Everything can appear relevant because there are so many interconnections (Blaxter et al., 2010). This makes the systematic back-and-forth process of qualitative research analysis even more essential for me to follow during the course of this research.

### **3.2.2 Longitudinal Qualitative Research**

Qualitative research is defined as a method that aims “to preserve the form of human behaviour and to analyse its qualities, rather than mathematical or other formal transformations” (Lindlof, 1995). The process is non-linear (although it is often presented as linear) and has a lot of back-and-forth between the research questions, the literature and the data (Freeman, 2009). Croker (2009) asserts that qualitative research is exploratory; so it lends itself to my purposes of exploring an area of research that has not been looked into. Longitudinal research, as Dörnyei (2007) warns, can result in participants becoming conditioned to provide the desired responses, rather than their authentic reactions. I have tried to counter this through only asking for the participants’ reflections at the end of the research process, and not providing them with explicit details of what it is I intend to observe. Dörnyei also warns that participants in longitudinal research can suffer from attrition. The group work projects are quite short (2 months), so attrition should not be such an issue. Also, the reward for the students to participate (feedback on teamwork) will be offered at the end of the research, so it is in their interests to stay until the end.

### **3.2.3 Sampling**

From my research questions I know that I want to research students working in multicultural groups in higher education institutes. However, I am limited to finding an accessible location and group based on negotiating access and need to have a research site that is near the institution where I am based. This has led me to reach out to lecturers in my own department for links that they had with other departments in the university

in order to secure access, so in that sense I have also employed forms of non-probability sampling, with convenience and snowball sampling.

#### **3.2.4 Data Collection Methods**

“Observation is the conscious noticing and detailed examination of participants’ behaviour in a naturalistic situation” (Cowie, 2009, p. 167). I have elected to use observation for this very reason, because it will allow me to understand how students use IC in a naturalistic setting. For this project I have elected to take an observer-as-participant role when recording the group work project. The role of the observer is often put on a spectrum from full participant to full observer (Lindlof, 1995). Being an observer-participant does run the risk, as Lindlof (1995) warns, of the researcher reading too much of their own conceptions into what they observe. Similar to this, I am aware of actor-observer bias; whereby participants are more likely to attribute their behaviour to context, but observers are more likely to attribute behaviour to personal dispositions (Crisp & Turner, 2010). This means that it is essential to get the participants’ perspectives on events and not rely only on my own interpretations. However, being a participant-observer was necessary as an ethical precaution so as not to interfere too much with the students in their completion of the task. There is a risk that intervening in the group processes of the students could give them an unfair advantage over other students. It may also disadvantage the students. Therefore, I decided to limit intervening to as little as possible and to take field notes, written up as soon as I left the field.

Audio-visual recording will play an essential part in the observation because I would like to show the participants video clips of their group work during the interviews towards the end of the data collection (see section 3.2.4.1). It also has the advantage of allowing me to put the data to repeated scrutiny through repeated viewings (Heath & Hindmarsh, 2002). There are several decisions that I will need to make when using audio-visual recordings, such as camera placement (if you’re keeping it stationary), what to record, and how to record what is said accurately (Heath, Hindmarsh, & Luff, 2010). These decisions could have an influence on behaviour, such as how a roaming video camera could distract the participants and making sure the microphone is in a good location to pick up speech, but not in the way of the participants.

### 3.2.4.1 Stimulated reflection and semi-structured interviews

I decided to conduct semi-structured interviews with each of the participants towards the end of the data collection phase, during which I would show them video clips from their group work in order to gather their reflections on their teamwork. I decided on semi-structured interviews because this type of interview has several helpful characteristics for my research. These characteristics are presented in Table 9 below, with comments in the second column on how this is useful for my own research. Other aspects to bear in mind are that I needed to establish a rapport with the interviewees, and that I was also conscious of the intercultural nature of the interview, which adds complexity to a form of research that can already be influenced by an insider-outsider dilemma, or different perspectives of power distance in the interviews (Ryen, 2001). The consequences of these could mean that the responses I receive from interviewees could be the responses that they think I want to hear, or, if treated as an intercultural encounter, the intended meaning of what the participants communicated could be misunderstood by the researcher, and vice-versa.

Table 9 - Characteristics of Semi-Structured Interviews

Characteristics of Semi-structured Interview	How it is Useful to my Research
The same question topics are asked of all those involved;	Allows for better comparison between participants and between cases.
The kind and form of questions go through a process of development to ensure their topic focus;	The questions will be focussed on the topic.
To ensure equivalent coverage (with an eye to the subsequent comparative analysis) interviewees are prompted by supplementary questions if they have not dealt spontaneously with one of the sub areas of interest;	If the participants go off topic I can put them back on track and lead the participants to comment on the same aspects of their group work.
Questions are <i>open</i> – that is the direction or character of the answer is open;	The questions will not be leading, in the sense that I will not guide the participants to the answers I want to hear.
<i>Probes</i> are used according to whether the interviewer judges there is more to be disclosed at a particular point in the interview.	I can probe the students further if I think they may have more to say on a particular section.

(Adapted from Gillham, 2005, p. 70)

The interviews were organised so that first I asked them some for demographic information, then I showed them individual video clips, and asked for their reflections

on them (see a discussion on how those clips were chosen in section 3.4.4). Stimulated reflection is a methodology that has been recommended in other multicultural teamwork contexts to highlight group processes to team members (DiStefano & Maznevski, 2000). It has also been used in contexts with teachers for professional development (Calderhead, 1981; Haw & Hadfield, 2011; Powell, 2005; Vesterinen, Toom, & Patrikainen, 2010; Westerman, 1991), and in addition it has been shown to be an effective way of revealing participants' thought processes in other contexts (Dempsey, 2010; Rowe, 2009). As such, it fulfils the three purposes of: showing students their own teamwork processes, working as an instrument in providing feedback on their teamwork, and providing me with insights into their thought processes and reflections on their group work experiences. Or, put differently, using video-based reflection in research can "promote greater self-knowledge for the participant" whilst at the same time giving the researcher "greater access to how participants construct their actions and the context in which these actions occur" (Haw & Hadfield, 2011, p. 52). For this research stimulated reflection allows the researcher to see evidence of students undertaking the reflective process as part of their learning, it can also make the students aware of aspects of the events they were previously unaware of.

However, there are some limitations to consider with stimulated reflection. It can generate eclectic responses, there may be time pressures in the interview to limit the amount of reflection, and their reflections may not be an accurate account of their thinking at the time of the activity (Haw & Hadfield, 2011). Eclectic responses could be beneficial to the data collection for providing a range of insights on different events. As for time constraints, that is a limitation that I will have to accept. For the final consideration, it is true that the participants' reflections may not be an accurate account of their thinking at the time of the event. However, unless I were to use think-aloud techniques, which would dramatically interfere with the teamwork processes, stimulated reflection seems to be the method that will get me closest to understanding the participants' reflections on their group work.

### **3.3 Getting Access to the Field**

In this section I will describe and explain what I did prior to the data collection, with some reflections on the decisions that I had to take during this period. Firstly, I will look at gaining ethical approval for the research. Secondly, I will reflect on how I negotiated access to the research site, which includes meeting the gatekeepers, negotiating conditions of access and thirdly, I will describe the process of recruiting participants.

#### **3.3.1 Ethical Approval and Information and Consent Forms**

In order to be able to conduct this research, I had to apply for ethical approval from the university. This consisted of completing a pro forma in which I had to identify which types of data I would collect, provide information about the prospective participants, explain how I would obtain consent from the participants, how I would keep the data that I collected secure, and consider if there was any risk to the participants or other ethical dilemmas. Alongside this approval form I submitted a consent form and an information sheet (see Appendix 1), which I would provide to those interested in taking parting in the research in order to gain their consent for participation and fully inform them of the research.

Prior to entering the field, I considered and read about potential ethical issues that could occur. I realised that I needed to decide what I considered ethical and unethical and whether or not I would intervene. I found that the advice of Mikhail Bakhtin was useful in this instance: “If one has the knowledge and capacity to intervene to bring about a more ethical outcome, then one must act” (as paraphrased by Boje, 2014, p. 27). What I was proposing to research also had an added level of ethical complexity because I was researching students from different cultures, whose ethics may be different to my own. Through reading Ting-Toomey and Chung (2005) I was able to find a guide to the questions to ask oneself if one is in an intercultural ethical dilemma. The questions I found particularly useful to consider were:

- Does it cause unjustifiable suffering to an individual or individuals at the pleasure of another group?
- What is my role and my “voice?” in this ethical dilemma?

- Should I condemn/reject this practice publicly and withdraw from the cultural scene?
- Should I go along and find a solution that reconciles cultural differences?

(Ting-Toomey & Chung, 2005, pp. 346–347)

I also needed to consider the ethical implications of publishing findings from a HEI that might (I did not know at this point) reflect badly on the institution I was based in. Farrimond (2013) asserts that academic freedom is one of the ethical principles for conducting research. This includes the freedom of the researcher to disseminate their research without interference. However, this could be problematic if an institution is granting permission to conduct research, but also wants to know beforehand if there is anything that they would disagree with. For this last instance, I did not think there was a clear way forward, until I knew more about my participants and the data I had collected. Other ethical possibilities that I considered were what I would do if a student felt that I was taking up too much of their time and interfering with their work. If this happened, then I would have to withdraw from researching them. I also had to consider that during the interviews I could not share what they had said about their experiences with the other students in their group, or with the lecturer involved.

Ultimately my research did not test many ethical boundaries. The students did not ask me to stop researching because it interfered with their work, or for any other reason. The only information that was discussed with their lecturer was information that the participants themselves had already discussed with her. Consent was not problematic either. I provided the participants with opportunities to withdraw at the beginning of the research, and again at the very end. None of the students asked to withdraw, and one of them actually offered me more freedom regarding the audience to which I may disseminate the data to than they had consented to initially. After the data collection I sent the participants transcripts of the interviews for their feedback to see if there was anything they did not want me to write about, including comments about their team members, but they were fine with what they had said.

### **3.3.2 Negotiating Access**

I had a clear idea early on in the research process of where I wanted to conduct research, and the type of data I wanted to collect. As such I began negotiating access to the

research site almost six months prior to the data collection. This began with a discussion on the conditions of access that the module leader set. I then, upon her request, presented my research to the student/student liaison group within the department for their approval.

### **3.3.2.1 Meeting Module Leader**

My university department has several links with other departments in the university through teaching intercultural communication theory and intercultural competencies. It was through one of these links that I was introduced to a lecturer of STEM subjects who taught a module that required students to work on a team project. Our first meeting was in the summer term of 2014, and in it she outlined the module that the students had to take and the common difficulties that they seemed to encounter when they reported back to her. She then asked about the nature of my research I planned to undertake. The lecturer was quite enthusiastic when she heard about my research, because she felt that it would help her to gain more insights into the struggles that her students encountered. This did raise some ethical concerns in my mind at that point, because the students may not want her to know about what happens in their particular groups during the student projects. I suggested that I could tell her about some of what happened if the students agreed, which she also agreed with. In the end the students discussed their experiences with her openly, so this was not an issue. The lecturer then gave her conception of what I could offer the students in order to take part. She said that I should offer feedback to the students on their participation, which I readily agreed to. She also stipulated that my research should not interfere with their work, that I could not advise them during their team projects<sup>4</sup> because it could give them an unfair advantage over the other teams on the course, and I had to present my research proposal to the students and staff at their committee meeting and gain their consent for my research to take place.

At this meeting, which took place in the autumn/winter term in the 2014/2015 academic year, the students and staff on the committee listened to my research proposal. They were quite enthusiastic about it. My proposal was helped by the fact that I had the support of the module leader. We presented the research as an opportunity for the

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<sup>4</sup> The lecturer used the terms 'team' and 'group' interchangeably in our conversations, and when presenting my research to the students.

students. They could receive feedback on teamwork, and they could also write on their CV that they had taken part in a research project on intercultural teamwork. After I had given my proposal I left the meeting for the students and staff to discuss it privately, and was then informed by the module leader that they had approved the research. Duff (2008) asserts that the challenges of gaining access to the research site should not be underestimated. Indeed, it was because of the possible challenges of gaining access that I decided to start negotiating access so early. However, in the end gaining access was a relatively smooth process.

### **3.3.3 Recruiting Participants**

Recruiting participants is linked with the type of sample one wants to collect (Ritchie, Lewis, Elam, Tennant, & Rahim, 2014). In my case, I knew that I wanted to recruit students from diverse backgrounds, who were working together in a group, so I had to choose a context where there was a diverse student population. The STEM department at my institution is highly diverse, with almost approximately 30% of students coming from non-UK/EU backgrounds (University of Warwick, 2013). Since I was aiming to recruit students who were from the same teams for the case studies, I could not try to recruit through individual contacts or advertisements on campus, which has been suggested by other researchers (Ritchie et al., 2014). Instead, I was able to present my research to all of the students in one STEM class, with the support of the module leader mentioned in section 3.3.2.1.

At their opening module lecture I was introduced to the students. I gave a basic outline of my research to them and told them what I wanted to do. I told them that I would be a “fly on the wall” while they did their group work projects, that I would record their group work, and that at the end of it I would provide feedback (see section 3.3.3.1) using the video recordings in individual interviews. The module leader also gave some supportive comments and told the students that they could also add that they took part in a team research project onto their CV. I then gave the students my email address, told them to speak to their other group members if they wanted to take part, and then email me if they had all agreed to take part. I received two emails from students, who said that their group members had agreed, and who invited me to record their meetings. At the first



meeting I explained the research project again, provided the students with an information sheet that they could keep, and explained the consent forms to them, which they filled in and then I began recording (see Appendix 1). When asking for volunteers to participate in a study, Brown (2001, p. 85) has warned that there is the risk of having a group that is over-represented with “‘eager beaver’ or ‘gung-ho’” participants. In my case this was somewhat mitigated by the fact that only one of the other group members initially was interested enough to convince the others in the group to participate. The other group members agreed to take part, but they were not necessarily motivated enough, or interested in the research that I was doing to actively try to contact me. This meant that I was able to get a range of students in each group in terms of motivation towards learning about working in multicultural teams.

### **3.3.3.1 *Providing feedback***

As mentioned above, the quid pro quo offered to the students for taking part in the study was that at the end of the study I would give them individual feedback at the end of an interview where I played the video clips of their meetings to them. Part of the purpose of this interview was also to record their thoughts and interpretations of different events during their project. However, I did also want to offer students something for taking part that was useful to them. I felt that feedback on teamwork would be something that they would value. Initially I was unsure if I was sufficiently qualified to give them feedback. I had read a lot of the literature about teamwork, beyond what is in the literature review, so I felt that I had a good general idea of what constituted good teamwork, and what the experts felt was effective teamwork. However, knowing conceptually what makes effective teamwork, and being able to provide effective feedback on concrete projects felt like two different things. I needed to teach myself about how to provide feedback to the students that was useful but also did not negatively affect their self-esteem. In order to do this I asked members of staff who had experience of this for advice, I consulted managerial texts on feedback (e.g. Harris, 2006), and I found the STAR framework (Higgins, 2014), which was useful for advising the students when I was providing feedback about how to later talk about their experiences in an interview situation. It was also useful to tell the students about the STAR framework (Situation, Task, Activity and Result) at the start of the interview because it modelled to some extent how they could talk during the interview about their experiences during the teamwork project.

Although I found getting this advice on how to provide feedback useful, in the end the best feedback was not what I could provide through talking to them. Instead, what influenced the students more profoundly was seeing themselves in the video clips. This was beneficial because their reflections on the video clips led the interview, instead of any ideas I had about their performance, or any feedback I could give them.

### **3.4 The Background to the Module and the Participants**

In this section I will provide some background information about the STEM module that the students were taking, with some more detailed information on the type of group project that they were given by the module leader. Then I will provide some background information on how the groups were formed and of the participants who volunteered to take part.

#### **3.4.1 Module Background**

The module that the students were taking was statistical modelling. For this module the students were given a group work project. Their project had two parts; the first was that each group had to work together to write a joint report recommending certain statistical choices for a company in order to advise their investment in a national market. In the second part of the module they had to prepare and deliver a ten-minute group presentation (for which they were marked individually). The project that the students had to work on initially was to design a statistical model, using real world data on national levels of health and life satisfaction. The use of real-world data made the module more challenging for the students because they were inexperienced in using, and interpreting, real world data. The task was designed to be difficult, and to involve contentious interpretations and uncertainty. It was the process of developing this model that the students had to write their report on. For the presentation the students were required first to present to their peers the work they'd done on the model, and their final conclusions. In the second half of the presentation the students had to talk about their experiences of working together. They could talk about the problems that they encountered, what they learnt, and the roles that they performed in the group. The students were encouraged by the module leader to refer to the Belbin roles during their group work (Belbin, 2012). However, in the two student teams I recorded, the students only considered their group roles, in relation to Belbin, post hoc and to suit the

requirements of the presentation. In the interviews, when asked about the Belbin roles, the students often had only dwelt on them superficially. The students were also not told that they were required to assume different roles (such as leader or manager) before the start of their project. Any roles that they assumed developed organically.

### **3.4.2 Participants and the Composition of the Teams**

The module leader was quite systematic in how she formed the student teams. The students did not have a choice with whom they worked with. She composed them with the intention that the teams (of four) be as diverse as possible within the limits of the relatively small cohort (forty students). The module leader defined diversity through the categories of nationality, gender, disciplinary background, and average attainment in their degree up until this point. The cohort was not so diverse as to allow for all students markedly different from each other to be in different groups. For example, approximately half of the cohort was British, and there was a strong gender imbalance (approximately 70% male), meaning that not all of the groups would have a female member. The module leader made two further considerations in making the groups diverse; the students who had not taken the pre-requisite module were spread out across the groups, so that they would receive help from the other group members who had taken the prerequisite module, and similarly the students who had not taken so many statistics modules were also spread throughout the teams.

#### **3.4.2.1 Group One**

In Group One (see Table 10) there were four males from three different national backgrounds. Two were British, one from Cyprus, and one was Chinese. They were all of similar age, although Hitchens was a few years older. Hitchens was also different from the rest of the group in that he had had some experiences of a workplace culture before he entered university. He had to complete two years of National Service before he could start university.

**Table 10 - Group One - Demographic Information**

<b>Name<sup>5</sup></b>	<b>Gender</b>	<b>Nationality</b>	<b>Academic Background</b>	<b>Academic Record<sup>6</sup></b>	<b>Age</b>
Carl	Male	British	Maths and Statistics	1 <sup>st</sup> in Group	20
Edward	Male	British	Maths and Statistics	2 <sup>nd</sup> in group	20
Hitchens	Male	Cypriot	Maths and Statistics	3 <sup>rd</sup> in group	23
Nathan	Male	Chinese	Maths and Statistics	4 <sup>th</sup> in Group	21

### **3.4.2.2 Group Two**

Group Two also had four members (see Table 11). One of the group members was female, from Hong Kong. The other three group members were male, two were from Britain and the other was from Bulgaria. As shown, the academic background of these four students was slightly different compared to those in Group One.

**Table 11 - Group Two - Demographic Information**

<b>Name</b>	<b>Gender</b>	<b>Nationality</b>	<b>Academic Background</b>	<b>Academic Record</b>	<b>Age</b>
Chahel	Male	British	Statistics	2 <sup>nd</sup> in Group	20
Devina	Female	Hong Kong	Statistics	4 <sup>th</sup> in group	22
Lazar	Male	Bulgarian	Maths and Statistics	1 <sup>st</sup> in group	21
Paul	Male	British	Pure Maths	3 <sup>rd</sup> in Group	20

### **3.4.3 Reflections on the Data Collection**

In this section I will outline my reflections on the data collection process. First, I will discuss my positioning during the data collection and analysis. Then, I will look at how my participants and I interacted as observer-participant, and I will detail some of my thoughts and decisions regarding the classroom recordings. After this I will explain my thoughts on the decisions I made regarding the clips I selected for the stimulated recall, and then how the interviews proceeded. Finally, in this section I will discuss how I obtained the Facebook data from the participants.

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<sup>5</sup> These names are all pseudonymous.

<sup>6</sup> I was not provided details of their grade averages but was informed by the lecturer of how the students had performed during the course of their degree up to that point compared to their team members.

#### **3.4.3.1 Researcher Positioning**

In qualitative research it is important for the researcher to be cognisant of their own positioning and to reflect on how their knowledge, beliefs, and previous experiences may influence their collection, interpretation and analysis of the data (Berger, 2015). This means that the researcher has to recognise their own frame of reference, and then use strategies to maintain reflexivity throughout the research process (see strategies used to maintain reflexivity, section 3.4.3.1.4). Below, I will detail what my own frame of reference was in my approach to this research, and the strategies I engaged with to ensure that I reflected on my position.

There are several personal characteristics that may be relevant to a researcher's positioning. According to Berger (2015, p. 220), these can include: gender, race, affiliation, age, sexual orientation, immigration status, personal experiences, linguistic tradition, beliefs, biases, preferences, theoretical, political and ideological stances, and emotional responses to the participants. Each of these characteristics may be more or less relevant depending on the type of research being carried out, and the stage that the research is at. For example, a male looking at female experiences of discrimination in policing would have to consider the role their gender may play in their interactions with female interviewees, how willing they may be to share their experiences, and how he may be unable to get inside the experiences of his participants. Similarly, one's affiliation to an organisation (e.g. if he was affiliated with the police and he was talking to female offenders) may influence his participants' responses, as could his beliefs (e.g. if he believed the police to be a benevolent force in society, whereas his participants may view them as a hindrance). A limitation of using these characteristics is that it is not possible to list everything that could be relevant, because my own positioning may move according to various uncontrollable factors, such as my mood at the time of the data collection, or if I was reading certain texts prior to an interview. Some of the characteristics listed are vast, such as personal experiences. To list all of the personal experiences that may influence one's positioning would be impractical (due to the amount of time it would take), and probably impossible (due to the fallibility of one's memory). In Table 12 I list my personal characteristics based on Berger's list. I will then unpack some of the characteristics that I felt were particularly salient to my research.

Some of what is written is a speculation of the impact, because it is difficult to know what influence these characteristics had in different times and places throughout the research.

**Table 12 - Characteristics that could influence my positioning**

Characteristic	Answer
Gender	Male
Ethnicity and Nationality	White British
Affiliation	Centre for Applied Linguistics, University of Warwick
Age	30
Personal experiences	Intercultural experiences, experiences of teamwork
Native Language	English
Beliefs	Developing intercultural skills is generally a good thing that will improve students' chances for employment and should help society overall.
Biases	I may have some bias towards seeing culture as the root of disagreements, rather than considering an explanation of differences and a factor in conflict
Preferences	Types of people I prefer, types of working style, types of team member
Theoretical stance	Aim of going in with an open mind - exploratory research - but still influenced by reading of group work literature and literature on intercultural competence
Political stance	Mid-left against the marketisation of HE
Ideological stance	Belief in fair student participation, and that education can improve people's lives
Emotional responses to participant	I had to make sure I regulated my emotional responses, so as to show empathy towards the participants described in the interviews, and also to ensure that I provided feedback in a positive way.

The main characteristics that I considered as possible influences on my research were my personal experiences, my biases, and the emotional responses I had to the participants. I shall go through these one by one.

#### 3.4.3.1.1 Personal experiences

I considered the influence of two aspects of my personal experiences. The first was the influence my previous intercultural experiences may have had on my interpretation of the research. The second aspect was my previous experiences in teamwork. My previous experiences in teamwork could influence how I interpreted the actions of my participants. I discuss aspect each in more detail below.

There was a risk that, due to my intercultural experiences, I would only view the interactions of the students as intercultural or see culture as the main cause for tensions. In order to avoid this, I ensured that the questions I asked did not lead the students to focus on culture, but on whatever they thought may be the reasons for how their projects went. The questions I asked during the interviews were intended to ensure that the students were not led into what they thought would be desirable responses. It is still possible that the students still gave me responses that they thought I wanted to hear, but this was not due to me leading them to discuss culture. There was also a risk that during the analysis I would over-interpret the role of culture in different interactions. In order to balance this, I elected to do inductive analysis on the data first, so that I would not analyse the data solely through an intercultural lens. This would more accurately convey the teams as they were.

The situation was similar when considering my previous experiences of teamwork. I did not want my previous experiences to lead my questioning in the interviews, neither did I want to respond in such a way as to lead them to what they thought would be desirable responses. This was more complicated than the issue of previous intercultural experiences because part of the motivation for them to participate was to receive feedback on their teamwork. In order to balance this, I made sure that the advice I gave them was based on leading thought on working in teams, and not on my own perspectives. However, this turned out to be difficult, because in order to validate some of the difficulties they voiced during the interviews, I found it effective to relate my own personal experience. I did this to appear empathetic towards their narratives. When it came to the analysis of the data, it was again similar to the intercultural aspect. I performed inductive analysis first, so that my personal experiences in teamwork were not at the forefront of the analysis and could then be applied once the data had been systematically analysed inductively.

#### 3.4.3.1.2 My biases

One aspect of intercultural research has received criticism is that many intercultural researchers view culture as a defining factor in cross-cultural interactions (McSweeney,

2002). I assumed that I was not immune to this, and that I too see culture as being at the root of certain interactions. My approach to this during the research was to make sure that I only asked questions about culture when the participants themselves brought it up. There was a risk here that the participants may not then provide the type of data I was researching, but fortunately the group members themselves felt at different times that culture was salient in some of their interactions. The other bias I had to reflect on was during the analysis. Here I sometimes felt that the students did not develop their ICs because they did not talk about it. This required a nuanced interpretation of the data. I had to remember that where there was no evidence of learning (i.e. when it was not present it during either the interviews or during their teamwork discussions) did not mean definitively that the students did not learn, just that I was not privy to it. Subsequent teaching experiences and discussions with other educators has revealed that students may not realise what skills they have learnt from a certain experience until over a year after the experience itself. Unfortunately, it was a limitation of the research that I could not follow up. This could be due to a limitation in the analytical framework used (Taylor, 1994a), or due to the data collection period, or because their learning did not come to mind during the reflection process, but could have at subsequent reflections. One other important aspect to consider is that the data presented in the analysis chapters below is not all of the data I collected, but a selection of the data that was relevant to answering the research questions. Some of the data may be relevant evidence for developing ICs, but not according to the theoretical framework I was applying. This filter process is not unusual in qualitative research (Swain, 2006), and though guided by my theoretical positioning, was essential in order to answer the research questions effectively.

#### 3.4.3.1.3 Theoretical Stance

My theoretical stance on the research changed as I collected the data and progressed with the analysis. This is not unusual, as Agee comments: "The development of new questions, especially sub-questions, often occurs during the inquiry process, sometimes during data collection and analysis" (2009, p. 436). Initially, I intended to research how culture may affect decision-making in student teams. However, during the data collection it became apparent that the data collected during the meetings and interviews



would not work with the theoretical focus I initially had taken. In response to this, I changed my theoretical focus decided to conduct an inductive analysis of the data to see what emerged from the meetings, interviews, and online data. This inductive analysis showed that what was interesting was the learning involved in working in teamwork projects. As the analysis progressed, I researched learning theory and the development of intercultural competencies as a theoretical framework to take the analysis forward. This process of reflexivity allowed my theoretical stance to adapt with the data collected. This was not without some disadvantages, since, as intercultural competence development became more of a focus in the data, it was too late to ask the participants about it explicitly. However, the students did refer to their own learning during the interviews, and development was also evident in the meeting and online data, so, as the analysis progressed into the deductive stage, it was possible to map this learning into IC frameworks.

#### 3.4.3.1.4 Strategies for maintaining reflexivity

Berger (2015) suggests several strategies for maintaining reflexivity in qualitative research (see Table 13 for list and my actions). Some of these strategies were not possible to implement for this research, such as forming a peer support network, and peer interviews. However, I was able to implement most of the strategies on this list in order to ensure that I maintained reflexivity during the research. Some of these strategies, such as peer review, helped me to develop my thinking on the data, as did keeping a research journal and memos of my thoughts during different sections of the data analysis.

**Table 13 - Strategies for maintaining reflexivity (adapted from Berger, 2015, p. 222)**

Repeated interviews	Not possible
Prolonged engagement	Yes - with lecturer and participants
Members checking	Participants checked their interview transcripts
Triangulation	Three data sources could triangulate: interviews, online data and meetings.
Peer review	Not possible in the formal sense of peer review publication, but I checked findings with my supervisors and presented them at conferences, which were forms of peer review.

Forming peer support network	There was a peer support network of other PhD students in my department, but they were not involved in the data analysis.
Back talk groups	Not possible
Keeping a diary/research journal	Yes
Creating an audit trail of researcher's reasoning, judgment and emotional reactions	Yes - memos in analysis and in research journal

#### **3.4.3.2 Participant/observer relationship**

I have already stated in section 3.2.4 that I intended, before I entered the field to be a participant-observer, with very little direct influence on the group's work. Indeed, when I recorded the groups' meetings I tried to be as unobtrusive as possible. I hoped that this was how the students would interpret "being a fly on the wall," although it is possible that characterising observation in that way could have been interpreted as intrusive. I would always try to arrive at the room where they were meeting early, and set up my filming equipment before the students arrived, so that they would not have to wait before they could start, and also the cameras were set up and seemed part of the furniture. I also wore similar clothing for each meeting and sat at the back of the room, trying not to look too directly at the students as they had their meetings. In short, I tried to make the equipment and myself forgettable. This approach had varying levels of success. Group Two often had meetings in public places, which made them more aware, I think, of the fact that there were cameras because they could see other people looking at them being filmed. I did not want to interfere with their meetings, but after a few meetings like this I asked them to book rooms to meet in. I also emailed one of the students a link to a website where they could book study rooms at the university. Here I was balancing the level of interference in doing this against the level of interference that being conscious of being filmed in public would also have on the group. I judged that the former would have less impact, and it would also increase the film and audio quality. Being unobtrusive did not always work in another sense, because the students would sometimes address me directly, offer to get me a drink, or ask if everything was okay. In those circumstances I could not ignore them, but I tried to keep my answers short and let them get on with their meeting. There were also times when I had to leave the cameras recording while I left the room, and on one occasion one of the participants

made funny faces into the camera whilst I was away. Another time the students swore and then apologised into the microphone for swearing, so they were sometimes more aware of the cameras and recorders than I thought. However, in each of the interviews at the end I asked the students about the extent to which they were aware that they were being filmed. The responses were quite varied. The majority (6) said that they forgot about the cameras after a few minutes. However, two students did comment that it took them a few meetings to become comfortable with the cameras to the extent that they forgot they were there.

#### **3.4.3.3 Classroom recordings**

When I started recording the students' team meetings there were several decisions that I had to take regarding the use of recording equipment. Much of this was informed by reading (Heath et al., 2010) on using video in qualitative research. From this I decided to employ two fixed cameras to record the interaction, one in each corner of the room. I also had two audio recorders, which I put on the tables to pick up more clearly what the students were saying. I chose this method because having two cameras gave me a clear view of everything that was happening, but it also meant that I had a backup camera in case something went wrong with the other camera. Having a fixed camera, rather than a roving camera meant that there was less interference from me on the team's meeting. It was also suitable because the students often held their meetings sitting around a table, so there was no need to follow them around the room or a wider area. The audio recorders were particularly useful, not only as a backup to the cameras, but also because, particularly with Group Two, they picked up the conversation far better than the video cameras. At the end of the meeting recording sessions I was able to synchronise the audio recordings with the video clips so that the sound was much clearer. This, however, took a lot of time. It also made it to choose clips to show the students in the interviews. However, the enhanced audio quality of the videos made the dialogue much clearer for the students to listen to during the interviews.

#### **3.4.4 Decisions for Selecting Video Clips for Stimulated Reflection Interviews**

Choosing clips for the students to reflect on in the interviews was complicated because, as (Kelly, 1963, p. 73) asserts, people do not respond directly to events, they respond to the *meaning* they attach to events. This means that when showing the students the video

clips from the meetings, I would only get meaningful reflections if I showed events to which the participants had imbued meaning. Taylor defines these as incidents where the someone has an affective response or experiences a cultural disequilibrium. Unfortunately, knowing if the students had experienced such a response or disequilibrium could only be known through showing the students the clips and then listening to their reactions to them. It was possible to choose clips based on their reactions at the time of the clip. When doing this, I would have to judge if during the clip there was evidence of them experiencing something that was affective by looking at the expressions on their faces, what they were saying, or by their body language. This was still problematic. If the students talked a lot about an event shown to them and were able to remember their thoughts during the event, then it seemed evident that I had chosen a clip in which they had imbued meaning. However, it is possible that they were creating meaning upon being shown the clip, as they may have thought that was the desired response. When the students had not imbued meaning into the events, such as when they admitted they could not remember them or did not understand why I was showing it to them, it was still important to the analysis. This is because it revealed at times their lack of awareness or participation during an event which was seen as important by some of their team mates. This then sometimes led to discussions about what the event could have meant to others, and to the students trying to consider the thought processes of their team mates.

Surprisingly, there was very little guidance in the stimulated reflection literature in how to choose clips for participants to reflect on. Instead, I based my decisions on the data; that is to say on the interactions of the group members during their project. These clips for the interviews were selected based on the incidents during the project where I perceived there to be creative tension amongst the students. I was trying to find “critical incidents” based on the criteria outlined in the Literature Review chapter (section 2.3.3.2). Initially I conceived these as moments where the students would be making group decisions. However, after reviewing the meetings and listening to the students’ presentations, I then selected clips where there was discord, disagreement or a misunderstanding (due to intercultural elements I perceived in the interactions, as discussed in the preceding paragraph) because there was less evidence of creative tension in reaching group decisions than there were in other events during the progress

of their projects. The limitation of this method of selecting the clips was that a student might not interpret in the same way as me an event that I interpreted as a meaningful for them. However, in order to make sure that the students within the same team were asked about the same events, I decided to accept this potential limitation, because it would not be possible to choose a video clip that had significant meaning to all of the students within a team, especially in advance of showing it to them. Another problem with selecting the video clips was whether intercultural competencies were relevant to the event. The participants may not have viewed culture as playing a specific role in the clips they were shown (this aspect is discussed in section 3.6.3 below). There were also several other limitations to this process of selecting clips. The first were the time constraints between the students' presentations and their interviews. The university term ended soon after their presentations, so I had to prepare and arrange their interviews in a short space of time, conducting four interviews a day. This meant also that there was not much time for me to review the videos for appropriate clips for the stimulated reflection interviews, and I could only watch all of the meetings the whole way through once or twice. I was able to look at my field notes to supplement my understanding of the meetings, and which meetings had particularly important moments. Another limitation was that I would only be able to show three, or possibly four clips in the interview, especially if the clips were particularly long (e.g. >5mins). A further limitation to the interviews was that I had not yet been permitted access to their online communication, so I was going into the interviews without knowing this aspect of the process on the project. A final limitation, although it could be seen as a consideration, was the fact that not all of the participants were actively participating in some of the clips that I considered to be important. So, I had to decide at this point as to whether the clip was so important to understanding the group's project as to warrant its inclusion. This also had to be balanced with whether the non-speaking group member would see ways they could improve even though they were less involved in the incident. Sometimes I based this on the overall involvement of the participant who was not involved in this particular clip. If they were normally not so talkative, then I would include it because I felt that the fact that they were not talking might be salient in itself. I also decided to choose, as far as possible, the same clips for all of the interviews with the group members within each group. That way I had four (five, including my own) perspectives on the same event.

### 3.4.5 Interviews

The interviews themselves were quite variable. I had hoped that I would be able to put the participants at ease and have them talk quite freely. However, this was not always the case for various reasons. The first was that, as mentioned above, the video clips were a powerful tool for stimulating reflection and providing feedback. The students initially had a strong reaction to seeing themselves on video. This meant that sometimes the students did not seem fully aware of what I was asking them because they were dwelling on seeing themselves on film. After a few interviews, I reordered the clips that I showed to the students so that the first clip was shorter, and (I judged) less salient than the other clips I wanted to show the interviewee. During the first few interviews the students seemed distracted by their appearance and hearing themselves during the first clip. Some were unable to focus on the question, so I reordered the clips so that the first they saw was shorter, and of less importance to the research questions, so they would get over seeing themselves in the first clip, and then could provide more insights into clips they saw afterwards that were more salient to the research questions. Another problem was that, as mentioned in the section above, the video clips had variable levels of importance to the students. Some students could remember quite clearly the clips that I showed them, whereas for others it seemed as though they were viewing it for the first time, as if they had not been in the room. This is interesting for interpretation and analysis, but at the time it felt like I had missed something and chosen the wrong clip. I was also concerned about how useful a student may find the clip for feedback purposes if they could not remember the incident. The interviews were also affected by other factors, such as the relative English language proficiency levels of the participants, whether or not the participants were willing to talk freely about their experiences, and their overall interest and investment in the group project. I did not find that there was an improvement in the interview experience as time went along. Each interview varied depending on who I was interviewing, so I could not say whether or not there was any improvement in my interview skills during the process of interviewing. However, each interview did give me a different understanding of the group dynamics and their individual understanding of events, so by the time I got to interview the last person in the group I felt I knew a lot more about the group as a whole than I did at the start, and that was even with the fact that I had observed the group's meetings.

### **3.4.6 Collecting Facebook Group Data**

Both of the groups had conversations online about their projects. I knew that this was happening; however, I did not ask to see this until during the interviews. This was because I wanted them to have a space during the group project where they could be away from me in case they wanted the freedom to express themselves without me. Then, at the end of the interviews I asked the students individually if they would be comfortable sharing their online communication with me. If all of the students agreed, then I would ask the last person I interviewed to give me access to their online communication. The students consented, so I was granted access to two sets of online communication. I would have liked to have read the online communication before the interviews because I would have understood each group's dynamics much better. However, this is a limitation, with the trade-off that I have a set of online communication that took place without my observation, so the observer effect on this data is far less significant than on the video recordings.

## **3.5 Data Collected**

In this section I will show the different sorts of data I collected and how much of each type I recorded. First, I will look at the data collected from Group One, with the data collected from their meetings, the interviews, and the Facebook posts. Then I will do the same for Group Two. After this I will show a table of the totals of data collected and summarise other data collected for the two cases.

### **3.5.1 Data Collected from Group One**

Table 14, Table 15 and Table 16 shows the different data that I collected from Group One. In the first table shows some of the meetings are shaded in grey. This is because those were meetings that I was unable to attend, usually because the students forgot to inform me about them. However, in the case of the first meeting, from my understanding it is because at this meeting they wanted to discuss if they would allow me to film them. As shown in the data collected column, I had more than just recordings, I also took field notes from each meeting, which I compiled directly afterwards and also referred to in

my decisions for which clips to use in the interviews. Table 15 shows the interviews that I had with the students and Table 16 shows the Facebook activity of the students.

**Table 14 - Group One Meeting Data**

<b>Meeting No.</b>	<b>Date</b>	<b>Time</b>	<b>Recorded Meeting Length</b>	<b>Location</b>	<b>Data Collected</b>
Meeting 1 <sup>7</sup>	13/1/2015	13.00-14.00	NA	Open Work Space, Sciences Building	None
Meeting 2	15/1/2015	13.00-?	NA	Private Meeting Room, Small lecture theatre	None
Meeting 3	19/1/2015	15.00 – 18.00 (3hrs)	2hrs 28	Private Meeting Room, Library Facilities	Video and Audio recording, Observational Field Notes
Meeting 4	22/1/15	10.00-11.00 (1hr)	56 minutes	Private Meeting Room, Small lecture theatre	Video and Audio recording, Observation and Field Notes
Meeting 5	26/1/15	15.00-18.00 (3hrs)	2hrs 40	Private Meeting Room, Library Facilities	Video and Audio recording, Observation and Field Notes
Meeting 6	30/1/15	14.00-15.00 (1hr)	1hr 35	Private Meeting Room, Library Facilities	Video and Audio recording, Observation and Field Notes
Meeting 7	29/1/15	18.00 -?	NA	?	None
Meeting 8	2/2/15	09.00-13.00 (4hrs)	3hrs 40	Private Meeting Room, Library Facilities	Video and Audio recording, Observation and Field Notes
<b>Total Meetings observed: 5</b>			<b>Total time recorded of meetings: 11hrs 19</b>		

<sup>7</sup> Grey shading means that it was a meeting I was unable to attend.



**Table 15 - Group One Interview Data**

<b>Interviewee</b>	<b>Date</b>	<b>Interview length</b>
Carl	16/2/15	66 minutes
Hitchens	18/2/15	50 minutes
Nathan	18/2/15	52 minutes
Edward	18/2/15	52 minutes
<b>Total: 4 Interviews</b>		<b>3hrs 34</b>

**Table 16 - Group One Facebook Data**

	<b>Facebook Posts</b>	<b>Replies to Facebook Posts</b>	<b>Other Facebook actions (likes)</b>	<b>Total</b>
Carl	9	103	15 (+ 1 poll)	<b>127</b>
Hitchens	21	72	20	<b>103</b>
Nathan	0	18	10	<b>28</b>
Edward	11	43	6	<b>60</b>
	<b>Total: 41</b>	<b>Total: 236</b>	<b>Total: 51</b>	<b>Total of all Facebook Actions and Posts: 328</b>

### **3.5.2 Data Collected from Group Two**

This data is presented in the same way for Group Two as it is for Group One.

Table 17 shows the data collected from the meetings. Table 18 contains information about the interviews that I conducted with the students and Table 19 shows the students' different levels of activity on the Facebook group.

Table 17 - Group Two Meeting Data

Meeting No.	Date	Time	Recorded Meeting Length	Location	Recording place	Data Collected
Meeting 1	12/1/15	10.00 – 11.00 (1hr)	NA	Library	N/A	None
Meeting 2	16/1/15	13.00-14.00 (1hr)	46 minutes	Open Work Space, Sciences Building	Statistics Common Room	Video and Audio recording, Observation and Field Notes
Meeting 3	20/1/15	09.00-11.00 (2hrs)	NA	Open Work Space, Sciences Building	N/A	None
Meeting 4	23/1/15	13.00-14.00 (1hr)	59 minutes	Open Work Space, Sciences Building	Statistics Common Room	Video and Audio recording, Observation and Field Notes
Meeting 5	25/1/15	15.30-17.30 (2hrs)	1hr 44	Private Meeting Room, Library Facilities	Booked Room	Video and Audio recording, Observation and Field Notes
Meeting 6	27/1/15	16.00-17.00 (1hr)	50 minutes	Open Work Space, Sciences Building	Statistics Common Room	Video and Audio recording, Observation and Field Notes
Meeting 7	29/1/15	18.00 -?	NA	?	N/A	None
Meeting 8	1/2/15	13.15-16.30 (3hrs 15)	3hrs 18	Open Work Space, Library Facilities	Learning Hub	Video and Audio recording, Observation and Field Notes
<b>Total Meetings observed : 5</b>			<b>Total time of recorded meetings: 7hrs 37</b>			

Table 18 - Group Two Interview Data

Interviewee	Date	Interview length
Chahel	16/2/15	50 minutes
Lazar	17/2/15	43 minutes
Paul	18/2/15	44 minutes
Devina	26/2/15	44 minutes
<b>Total: 4 Interviews</b>		<b>3hrs 1</b>

**Table 19 - Group Two Facebook Data**

	<b>Facebook Posts</b>	<b>Replies to Facebook Posts</b>	<b>Other Facebook actions (likes)</b>	<b>Total</b>
Chahel	17	44	9	<b>70</b>
Lazar	5	22	10	<b>37</b>
Paul	9	41	3	<b>53</b>
Devina	6	19	13	<b>38</b>
	<b>Total: 37</b>	<b>Total: 126</b>	<b>Total: 35</b>	<b>Total of all Facebook Actions and Posts: 198</b>

### 3.5.3 Data collected from Both Groups, and Other Data and Informative Sources

Table 20 shows the data collected in total for both of the groups. There are almost 19 hours of meetings recorded, six and half hours of interview data and over 500 instances of Facebook action. Other data I have about the students includes the slides from their presentations at the end of the project, notes from their presentations, notes from conversations with the module leader about the module and also what she thought about the experiences that the students had shared with her, plus the reflections in my own research diary. These are not quantifiable in the same way as the data recorded in the tables in this section; however, they are still valid sources of data that have helped to inform my understanding of both of the groups and contribute to the case studies' analyses.

**Table 20 - Total Data Collected Groups 1 & 2**

	<b>Meetings Recorded</b>	<b>Total time of recorded meetings</b>	<b>Number of Interviews</b>	<b>Total time of Interviews</b>	<b>Facebook Posts, replies and other actions</b>
Group One	5	11hrs 19	4 (out of 4)	3 hrs. 34	328
Group Two	5	7hrs 37	4 (out of 4)	3 hrs. 1	198
<b>Total</b>	<b>10</b>	<b>18hrs 56</b>	<b>8 (out of 8)</b>	<b>6 hrs. 35</b>	<b>526</b>

## 3.6 Analytical Decisions following the Data Collection

In this section I will look at the methodological procedures after data collection and explain the stages of analysis I have undertaken. First, I will describe the transcription process, followed by my coding procedure. Then, I will look at what I did for the

inductive and deductive analysis of the two cases, referring to the theory in the literature review and the research questions.

### **3.6.1 Transcription**

From my data I chose to transcribe the interviews, the video clips used in the interviews and a few other sections of the meetings, which were either critical incidents or potential critical incidents for analysis. Transcription is advocated by researchers as a key method of becoming more familiar with your data (Duff, 2008; Jones & Somekh, 2006). Murray (2009) takes it further and suggests that transcription is the start of the data analysis. For me the analysis began at the start of data collection; however, I am appreciative of the fact that the decisions you make in what you transcribe, and how you transcribe it, are analytical decisions. In the end, I decided to transcribe content only, with less attention to the aspects of a recording that would be transcribed in conversation analysis. My decision to transcribe content is based on my pragmatic stance towards the research. I want the research to be useful to practitioners and students. Because of this I decided that, although the findings from conversation analysis and microanalysis of conversation can be useful to practice, the specialist subject knowledge required to understand conversation analysis conventions may act as a barrier for lecturers and students learning about their communication when working in groups. Therefore, the interviews and the clips from the meetings that I transcribed focus on content, and only have markers for laughter, pauses and speech disfluencies ('um', 'er', 'uh' etc.). After I transcribed the interviews, I reread each transcription whilst listening to the interview to check for mistakes, then I emailed it to the participant to see if they were happy with the content, had anything more they wanted to add, or anything they wanted me to omit. Following this opportunity for feedback, I began coding the meeting and Facebook data<sup>8</sup>, which I will discuss in the next section.

### **3.6.2 Inductive Coding**

I coded with a qualitative data analysis software package called MAXQDA. MAXQDA allows one to apply the codes directly onto the video or audio clips. This had the advantage of allowing me to code the utterances of the participants alongside any salient visual aspects of their interactions. The coding procedure I followed was initially

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<sup>8</sup> For data samples of the interviews, meetings and Facebook see Appendix 2

inductive. Coding inductively is sometimes called “open coding” or “initial coding” (Saldaña, 2016, p. 115). The purpose of coding inductively was to remain open to all possible theoretical directions that the data could lead me to. The inductive coding was data-driven, as is recommended for “generating theoretical knowledge where little is known about a phenomenon” (Dörnyei, 2007, p. 262). This made sense as I was coding the sort of interactions that had never been researched before in this way, multicultural student teamwork. In order to answer my first research question, I needed to look at the data and how the students acted during a group work project, using the observation data that is absent from previous research in this context. The benefit of inductive coding was that it allowed me to become incredibly intimate with the data, see patterns that were not initially apparent, and organise the codes into my own categories. According to Saldaña (2016), multiple rounds of coding are necessary, and it is an iterative process. I recoded the data several times in order to be sure that the coding procedures applied were consistent, and that the categories for the parent codes were appropriate.

In the coding procedure that I used, I treated the data as qualitative content, and used qualitative content analysis as the analytical method to make valid inferences from the interaction data in the meetings and the Facebook interactions. The recording unit that I used as part of this inductive analysis was *theme*. This was according to Holsti (1963, p. 163) and his definition of a theme in text as having no more than one of each of the following elements (1) a perceiver, (2) the perceived or agent of action, (3) the actions, (4) the target of the action. At first, I coded the text, utterance, or paralinguistic feature, describing the action that occurred.<sup>9</sup> Then, I grouped those codes accordingly into thematic categories. These categories evolved as the coding progressed and were revised after several rounds of coding the data. The categories were then grouped into several main overarching themes.<sup>10</sup> This procedure is outlined overleaf.

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<sup>9</sup> In subsequent chapters ‘coding instances’ are discussed, note here that the instances can vary in length according to the coding procedure adopted.

<sup>10</sup> Terminology from different coding manuals varies, some would describe the categories as ‘second level codes’ and the overarching categories as ‘third level codes’ (Dörnyei, 2007), Urquhart (2013) uses the terms ‘open coding,’ ‘axial coding,’ and ‘selective coding.’

### 3.6.2.1 Coding Procedure

1. Read Text/listen to utterance/watch action.

#### Example 1 - Facebook Post from Group Two

Hola! Hope everyone is doing well. I'm going to be in the library tomorrow from 12-3 if anyone is around then to get some more work done for the assignment. I want to hopefully get most of the first section done by tomorrow so we have a better idea of how we need to progress with the model development.

☺

2. Code the text inductively

#### Example 2 - Facebook Post from Group Two, codes extracted from MaxQDA

CH <sup>11</sup> - Greets others	←	Hola! Hope everyone is doing well. I'm going to be in the library tomorrow from 12-3 if anyone is around then to get some more work done for the assignment. I want to hopefully get most of the first section done by tomorrow so we have a better idea of how we need to progress with the model development.	→	CH - Asks if others are okay
CH - Shares when he is free	←		→	CH - Suggests time to work on assignment
CH - States when he wants to get work done on assignment	←		→	CH - Justifies why he wants to get work done within time frame
CH - Smiley Emoji	←	☺		

3. Group codes into themes, and then categories

#### Example 3 - Moving codes to categories (extracted from MaxQDA for Facebook Post above)

Level 1 – Descriptive Codes	Level 2 – Sort codes into thematic categories	Level 3 – Sort codes into overarching themes
CH - Greets others	Greetings	Communication of Sentiment
CH - Smiley Emoji	Positive Emojis	
CH - Asks if all are okay	Well-wishing	
CH - Says when he is free	Meeting arranging	Task Management
CH - Suggests time to work on assignment	Meeting arranging	
CH - States when he wants to get work done on assignment	Task Planning	
CH - Justifies why he wants to get work done within time frame	Information sharing	Task Discussion

<sup>11</sup> CH – abbreviation for participant, Chahel.

4. Review codes and recode as appropriate, then review and revise the categories.
5. Perform the same procedure on the second case study.
6. Compare the codes in the two case studies, review and revise codes again where appropriate.
7. Perform a quantitative analysis on the codes to get a better overview of the group processes and change over time as to how the group interacted, and how their way of working together on the project developed.<sup>12</sup>

### **3.6.2.2 Using the codes to measure participation**

One of the benefits of performing inductive coding is that it enabled me to measure the surface-level participation rates of the different students during their projects. This was not just the participation rates in terms of time-talked in meetings and online actions, but also the surface-level participation rates relative to the different themes and overarching themes from the coding. This was important because it enabled me to corroborate if interview comments about team members who were free-riding or dominating discussions were supported by the data. It may also be a method in future research to understand if there are thresholds of surface-level participation for being perceived as dominating or free-riding. Performing this initial data analysis in this way provided useful insights into the data. It was in line with the advice of Corbin and Strauss (2008) to make sense of the data by pulling it apart and then putting it back together again. It was possible to see, for example, which students were more involved in arranging meetings, or in using positive rapport-related communication. It was also possible to map these changes over time, so as to get an overview of changes in group dynamics.

There are two limitations to measuring the participation according to levels of communication. The first is that it does not convey a sense of the work done outside of the meetings and online. A student may not contribute much during the meetings but contribute a greater amount to the writing of the final assessed piece of work. The second is that measuring surface-level participation does not provide insights into the thought process of those participating. It could be that a student may not be participating

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<sup>12</sup> The results of the inductive coding are at the beginning of each Case Study chapter.

much on the surface (e.g. not talking), but that they are thinking a lot about the team processes (see section 2.2.5). Understanding this type of participation could be understood through the interviews and deductive analysis, where it was possible to better understand the level of participation through the students' reflections.

### **3.6.2.3 Limitations in the inductive analysis**

There are several difficulties in taking this approach, some of which are inherent in the method of content analysis and coding, and some which are contextual to this research. A limitation of qualitative content analysis, (in terms of reliability) is its subjective nature (Berelson & Lazarsfeld, 1948). However, this subjective nature also provides a level of freedom to allow new theories to emerge (Dörnyei, 2007). Another limitation is the replicability of the coding results. In order to ensure that the results are reproducible, it is often recommended that more than one coder is employed to code the same data (Weber, 2004). Unfortunately, the individual nature of this research project meant that this was not possible. However, it was possible, with two case studies, to compare the code categories generated from both cases and compare the consistency of the coding. The coding methodology above was structured, and applied consistently and systematically, so as to ensure that the analysis of the data was rigorous. However, as is apparent above, it also incorporated a level of reflexivity and was data-led, so as to meet the criteria of “‘rigorous flexibility’ or ‘disciplined artfulness’” (Dörnyei, 2007, p. 245) recommended through structured but flexible qualitative analysis.

### **3.6.3 Deductive Analysis using the GPCF and IC Development Theory**

The thematic analysis methodology that followed the inductive analysis was a deductive analysis designed to answer the second research question. This analysis focused on the critical incidents, and the students' reflections on the critical incidents during the interviews. It also incorporated the results of the inductive analysis to help inform some of the incidents with supplementary evidence for IC development (or lack of). The procedure for this was as follows (see Yin, 2014):

1. Read over the critical incidents and the interview responses to the critical incidents.



2. Look for specific competencies used/developed or lacking in these incidents.
3. Look for evidence of development in the interview responses or in the longitudinal data (meetings and Facebook data).
4. Thematic coding (deductive analysis) of the critical incidents and interviews according to the GPCF (Spencer-Oatey & Stadler, 2009) and Taylor's Model for developing IC (Taylor, 1994a).
5. Write up the results of this analysis (see chapters 4 & 5).
6. Perform a Cross-Case analysis (see chapter 6), looking at the themes in both case studies.

Although this procedure had fewer steps than the inductive analysis, it was in some ways more problematic. This was because there were different interpretations of the critical incidents from the interviewees and finding evidence in the longitudinal data for development was also a challenge. No situation is the same, so what could be evidence of competence development in a subsequent situation following the critical incident could also just be a previously learnt response to that different situation. However, there was some good evidence in the process data, such as when students who did not use much rapport-related communication realised that the lack of it had an impact on their relationship with the other group members (following a critical incident involving a dispute), and then used more rapport-related communication with the other group members after the dispute. This was where the inductive coding was invaluable for showing changes that would not have been evident if I were to rely solely on self-reports from the participants. Some of the instances of development from the interviews were difficult to discern, for example, straightforward declarative reflections on a future change in behaviours were rare (e.g. "I would do this differently"), and in some cases the students were not aware that they could have done anything differently, or even that they needed to. In some cases, the students did not perceive culture as salient to the incidents. This provoked a period of reflection on the analytic process, and the use of intercultural competencies as an analytical framework if the participants did not view culture as salient. The result of my reflection on this process was the following:

### **3.6.3.1 Reflections on thematic analysis**

Intercultural Communication is defined as a situation in which it is perceived by one of the parties involved that culture has an effect on the interaction (Spencer-Oatey & Franklin, 2009). In this research I was one of the parties who perceived culture as having an effect on the interaction, based on my reading about different research on intercultural communication and through using the GPCF as a guide. It was me who chose the video clips to use in the interviews for reflection for the (potential) intercultural elements to these incidents. It was potentially problematic when the participants did not perceive culture as salient in all of the incidents, whereas I did. In the meeting data as well as in the interviews, the participants, on several occasions, demonstrated a lack of awareness of the different intercultural features of their interactions. This lack of awareness is related to intercultural competencies (e.g. the ability to observe, the ability to attune to different communication styles, the ability to accept differences in meaning etc.). So, I could (and do in some cases) argue that their lack of awareness of the intercultural aspect of the interactions was due to their unfamiliarity with certain intercultural competencies. However, I also acknowledge the possibility that the students were not aware of, or thinking about, culture because it was not salient to the interaction. However, the GPCF does contain competencies that are useful for development and applications to situations where culture is not immediately salient (such as attentive listening, synergistic solutions, flexibility, and sensitivity to social/professional context). Employers would value many of these competencies, even if they were developed from incidents that the students did not perceive as intercultural (see section 2.3.8). So, from a pragmatic perspective, even if a participant does not interpret the interaction as intercultural, the ICs that they could have developed from the situation would still be transferable and applicable to future intercultural situations. So, it is possible to apply frameworks of developing ICs to a situation that is not intercultural because the competencies are transferable. A further point on this is that the distance in interpretation between the researcher and the participants of salient events could also be revealing of the different priorities and areas of focus between the students who are undertaking teamwork projects and the researchers and lecturers who are concerned with IC development. This means that when the students are solely focused on the completion of their project, it is evidence that the message (from either the lecturer or the institution) of doing these projects for the development of

competencies is not being received. This would raise questions for institutions and lecturers about how to better communicate the learning aims of assignments.

With the awareness that some of these competencies could be applicable to, or developed, from situations in which the participants did not perceive the interaction to be intercultural, I proceeded with my analysis. As I proceeded I encountered several other challenges. The first was the suitability of the two frameworks for the data. In the data I found competencies that were not included in the GPCF, or which manifested themselves differently to how the GPCF described them. These are described in the deductive analysis sections of the case study chapters and during the Cross-Case Analysis (chapter 6). The second was the evidence of development according to Taylor's model for IC development, which may not cover all aspects of IC development that the students experienced. It was a challenge to fine-tune the analysis to the individual stages described in his model, as evidence of development was not always sequential, and nor did it fit neatly into one particular stage. This challenge in the analysis then also transferred itself into the writing of the case studies. However, the Cross-Case Analysis (see next section), served to clarify the development of intercultural competencies from the two case studies by working as a chapter to pull together the themes developed from the individual case studies.

#### **3.6.4 Presentation of the Case Studies and the Cross-Case Analysis**

This section will outline how I elected to present the analysis from the case-studies. Yin (2014, p. 117) suggests six different compositional structures for a case study: linear-analytic, comparative, chronological, theory-building, "suspense" and un-sequenced structures. The first two case study chapters are presented in a linear analytic fashion. The Cross-Case analysis is then presented with a comparative structure. Once again, these structures are not mutually exclusive, but it is useful to understand the different possible ways a case study can be presented. In the next chapters the Case Studies are presented as follows:

1. Introduction to Case (background to team members and basic chronology of their team project)

2. Results of inductive analysis, answering Research Question 1.a. (Literature Review, Section 2.3.3. RQ1.a.)
3. Results of thematic, deductive analysis, presented one incident at a time (answering Literature Review, section 2.3.3. RQ2.a. & RQ2.b.)

### **3.7 Conclusion**

There are links between the inductive analyses and the thematic analyses in both cases, but the character of these links is mostly in one direction whereby the inductive analysis informs the thematic analysis. This means that the relevance to the reader of the results of the inductive analysis may not be immediately apparent until reading the results of the thematic analysis.

The structure of the Cross-Case analysis is quite different to the individual case studies, reflecting the fact that it serves a different function. The cross-case analysis is structured according to the different competency clusters of the GPCF (Knowledge and Ideas, Communication, Relationships, and Personal qualities and Dispositions). This answers RQ2.a. & RQ2.b., but with the findings from the two case studies presented together, where they are contrasted and compared. This makes it clear from the two cases which competencies were developed and how, providing a platform to answer RQ2.c. in the Discussion chapter (where RQ1.b. is also answered).

## 4 Case Study One – Results and Analysis of Group One

This chapter has three main parts. The first introduces the case, with summaries of the team meetings, and a presentation of the participants' biographical data and team roles. The next section reports the results of the inductive coding of the meetings, and online communication from the group's project. The third part looks at the use and development of intercultural competencies through three incidents during the group project through deductive analysis based on the GPCF and Taylor's Intercultural Competence Development Model. This analysis is based on the students' actions during the meetings and online, their reflections during the interviews, and through their subsequent actions during the project.

### 4.1 Introduction to the Case

In this case study there were four students working on the project. Their biographical data are in Table 21. There will be more details about them as individuals as the case study progresses; however, here it is possible to become familiar with their names, ages, nationalities, academic backgrounds, and academic records (as provided by themselves and the module leader).

**Table 21 - Group 1 Team member information**

<b>Name</b>	<b>Gender</b>	<b>Nationality (Native Language)</b>	<b>Academic Background</b>	<b>Academic Record (compared to others in their team)</b>	<b>Age</b>
Carl	Male	British (English)	Maths and Statistics	1 <sup>st</sup> in team	20
Edward	Male	British (English)	Maths and Statistics	2 <sup>nd</sup> in team	20
Hitchens	Male	Cypriot (Greek, lived 6 years in Australia)	Maths and Statistics	3 <sup>rd</sup> in team	23
Nathan	Male	Chinese (Mandarin)	Maths and Statistics	4 <sup>th</sup> in team	21

#### 4.1.1 Team Roles

Table 22 below shows the team members' different views of each other's roles. Here it is possible to see how they viewed each other and their own roles (the grey boxes indicate their views of themselves in the project).

Table 22 - Views of each other's roles

Student →	View towards role of:			
	Carl	Edward	Hitchens	Nathan
<b>Carl</b>	Devil's advocate <sup>13</sup>	Leader <sup>14</sup>	<i>Did not specify role</i>	"If he was given a task to do he would just get on it" <sup>15</sup>
<b>Edward</b>	Leader <sup>16</sup>	Facilitator <sup>17</sup>	"He would look outside of the box for stuff that we needed" <sup>18</sup>	"He was kind of the odd job man" <sup>19</sup>
<b>Hitchens</b>	Leader <sup>20</sup>	Leader <sup>21</sup>	"Questioner of ideas" <sup>22</sup>	The team worker <sup>23</sup>
<b>Nathan</b>	"He gives out different ideas every time and the tries to do it" <sup>24</sup>	"Hold on to the whole picture of the task and organise everything" <sup>25</sup>	Challenge people and look at idea from different angles <sup>26</sup>	Followed what others were told and also gave advice to what is going on <sup>27</sup>

#### 4.1.2 The Project

For the project the group had to design a statistical model that was appropriate for measuring and comparing 'Happiness' across different countries. The variables for this model included economic metrics such as GDP, and survey responses to questions about perceptions of national corruption or individual freedom within a country. Often there are news articles claiming that one country is the happiest in the world (e.g. Garfors, 2017) and these types of articles are based on the use of similar variables.

<sup>13</sup> Carl Interview, 01:00 – 01:03

<sup>14</sup> Carl Interview, 01:08 – 01:17

<sup>15</sup> Carl Interview, 53:45 - 54:35

<sup>16</sup> Edward Interview, 28:42 – 28:44

<sup>17</sup> Edward Interview, 00:04 – 00:08

<sup>18</sup> Edward Interview, 29:28 – 29:45

<sup>19</sup> Edward Interview, 32:37 – 32:49

<sup>20</sup> Hitchens Interview, 36:22 – 36:29

<sup>21</sup> Hitchens Interview, 36:22 – 36:29

<sup>22</sup> Hitchens Interview, 00:43 – 00:48

<sup>23</sup> Hitchens Interview, 39:00 – 39:15

<sup>24</sup> Nathan Interview, 34:43 – 35:35

<sup>25</sup> Nathan Interview, 34:43 – 35:35

<sup>26</sup> Nathan Interview, 34:43 – 35:35

<sup>27</sup> Nathan Interview, 00:47 – 01:45

#### 4.1.3 Stage Summaries

Below is a table detailing the different stages of the group's project (Table 23). These stages provide a higher-level narrative of the group's project and represent the approximate movement of the group's focus from one aspect of the project to another. For the most part there was a linear narrative to the project, where they moved from one activity to another. However, there was some overlap in activity between the stages, particularly stages 3 and 4 where they were forced to revisit their decisions.

**Table 23– Stages of the Team Project**

Stage <sup>28</sup>	Team Activity Summary	Meeting No. and Facebook Discussion	Date	Duration of stage/meeting length
1	Edward set up the Facebook group, outlined project requirements, and organised the first meeting.	Facebook Discussion begins	8/1/15 until Meeting 1	5 days
2	The group began working on project, allocating jobs and reporting on their work in meetings.	Meeting 1 <sup>29</sup>	13/1/15	13.00-14.00
		Meeting 2	15/1/15	13.00-?
		Meeting 3	19/1/15	15.00 – 18.00 (3hrs)
		Meeting 4	22/1/15	10.00-11.00 (1hr)
3	Hitchens questioned the group's decisions on the project and a disagreement between him and Carl ensued. There was then a reconciliation discussion between Hitchens and Carl in the next meeting.	Facebook Discussion	23/1/15 to 24/1/15	2 days
		Start of Meeting 5	26/1/15	15.00-15.30 (30 minutes)
4	The group revisited their earlier work and rewrote report accordingly, then in the final meeting performed last minute edits to report and presentation.	Facebook Discussion	24/1/15 to 2/1/15	11 days
		Meeting 5	26/1/15	15.30-18.00 (2hrs 30)
		Meeting 6	29/1/15	14.00-15.00 (1hr)
		Meeting 7	30/1/15	18.00 -?
		Meeting 8	2/2/15	09.00-13.00 (4hrs)
5	Post-project, Hitchens communicated dissatisfaction with lack of credit given to his work in final version of report. In the interviews the students shared their thoughts and reflections on their fellow team members and on their experiences.	Last Facebook Comments on Project, Interviews	6/2/15 & one week after submission of project	N/A

<sup>28</sup> Stages do not represent equal time intervals, but movements in project focus and team dynamics.

<sup>29</sup> Boxes shaded grey indicate meetings at which the researcher was not present, and data was not recorded.

## 4.2 Results of inductive Coding

This part of the chapter presents the results of the inductive analysis. The process of this was outlined in section 3.6.2 of the Methodology chapter, and seeks to address the first research question, looking at how students act during intercultural teamwork projects (see Literature Review chapter, section 2.3.3. for research questions).<sup>30</sup> The results of this part of the analysis and the analysis in the second case study will also be used in the Discussion (chapter 7) to help answer RQ1.b.<sup>31</sup> The four overarching themes, and their most commonly occurring sub-codes, developed through the inductive coding are listed in Table 24. This part of the analysis will first look at the surface participation levels of the different students during the meetings and online. Then the results are divided into each of these coding themes, which these are presented one by one below. This is then followed by the presentation of the overall results of the inductive coding.

Table 24 - Coding themes and their most commonly occurring sub-codes

Theme	1. Task Discussion	2. Task Management	3. Rapport-Related Communication	4. Uncertainty
Sub-codes	Task discussion, Information sharing	Meeting planning, Task allocation, Future task planning, Task progress discussion	Humour, Praise, Greetings, Likes, Emoticons, Compliments, Communication of other sentiments	Clarification checks, Speculation, Confirmation checks, Misgivings

Researchers have divided all communication into two purposes, either communication of content or communication of rapport (Spencer-Oatey, 2008, pp. 1–2). The first two coding categories above reflect communication of content, and the third reflects rapport. The final category, *Uncertainty*, initially was a category within the theme of *Task Discussion*. However, through revising the codes, and triangulating with the interview

<sup>30</sup> How do students act in multicultural teams when given a project to complete?

<sup>31</sup> In what ways and to what extent were the observed experiences of students similar to those in self-reported research?



data, it became clear that *Uncertainty* was both rapport-related and task related (explained further below). *Task Discussion* reflected instances in the interaction where they discussed the project content, such as information about the different variables and statistical concepts. *Task Management* were instances where the students discussed and arranged the mechanics around the project, but not the project itself. These included arranging meetings, allocating tasks and utterances within meetings designed to introduce an agenda, or to change the topic of conversation. *Rapport-Related Communication* was instances of communication that were rapport based. Examples of these were instances of praise, well-wishing, politeness, humour and laughter.<sup>32</sup> The final category *Uncertainty* was generated after revising and reflecting on the codes. It incorporated instances when the students communicated uncertainty about the project, either explicitly (e.g. “I don’t know about...”) or implicitly through clarification checks and confirmations. Initially *Uncertainty* appeared to be related to *Task Discussion*. But in reviewing the interviews and Facebook data it became clear that the expression of uncertainty was related to the group rapport as well as to the task, and how comfortable the students felt clarifying meaning, and checking each other’s work. It was also useful when testing it as a separate category through analysing the code frequencies, as it revealed interesting aspects around intercultural competencies related to communication, and significant dynamics in the two groups’ progression with the project (discussed further below).

#### **4.2.1 Surface-Level Participation**

Measuring the surface participation levels of the different group members was important from the issues around multicultural group work in the Literature Review chapter (e.g. free-riding, perceptions of dominating the discussion, and opposing negative perceptions - see Literature Review chapter, section 2.1.2). The surface-level participation of the different group members is measured here in two different ways. The first metric was the time that each group member talked during the meetings (Table 25). This provides an impression of who spoke for more or less time in meetings, and who spoke for less time. However, time-talked is not the only indicator of participation,

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<sup>32</sup> Instances of rapport-damaging communication from the inductive analysis were rare, and mostly occurred during one event in the first group. However, there were instances of perceived rapport-damaging actions disclosed through the interviews, which were analysed during the thematic analysis.

because a group member could say something significant but not take much time saying it. Also, time-talked is not a feasible measure for online communication, where communication can be measured in number of words, *likes* and emoticons. For this, in both online and in meetings another metric was used. This metric was a count of the coded instances of utterances/online actions from each group member during each stage of the project (see section 3.6.2 for more information).

**Table 25 - Time-talked in all Meetings and Codes on Facebook**

	<b>Time-talked (All Meetings)</b>	<b>Percentage</b>	<b>Codes on Facebook</b>	<b>Percentage codes on Facebook</b>
<b>Carl</b>	06:30:53	43.33%	221	35.70%
<b>Edward</b>	02:53:26	19.22%	80	12.92%
<b>Hitchens</b>	03:37:49	24.14%	288	46.53%
<b>Nathan</b>	02:00:01	13.30%	30	4.85%
<b>Total</b>	15:02:08	100.00%	619	100.00%

**Table 26 - Coding Instances Across all Stages (N=3646)**

	<b>Stage 1</b>	<b>Stage 2</b>	<b>Stage 3</b>	<b>Stage 4</b>	<b>Stage 5</b>	<b>Total</b>
<b>Carl</b>	23 27.38%	183 37.27%	119 47.98%	1077 38.45%	1 4.55%	<b>1403</b> <b>38.48%</b>
<b>Edward</b>	24 28.57%	165 33.60%	23 9.27%	585 20.89%	7 31.82%	<b>804</b> <b>22.05%</b>
<b>Hitchens</b>	31 36.90%	98 19.96%	97 39.11%	868 30.99%	14 63.64%	<b>1108</b> <b>30.39%</b>
<b>Nathan</b>	6 7.14%	45 9.16%	9 3.63%	271 9.68%	0 0%	<b>331</b> <b>9.08%</b>
<b>Sum</b>	84 100%	491 100%	248 100%	2801 100%	22 100%	<b>3646</b> <b>100%</b>

In Table 25 above, it is evident that Carl spoke much more than anyone else during the meetings, and that Nathan consistently spoke the least. Edward and Hitchens' talk time was in the middle. Edward spoke more in the early stages, and Hitchens spoke more towards the end of the project.

In Table 26 above shows that Carl had the most codes attributed to him during the project, and Nathan had the fewest. Edward and Hitchens once again were in the middle. In comparing the time-talked with the coding instances show that both Nathan and Carl spoke more than the number of their coding instances. In contrast, Edward and Hitchens

both have a higher overall percentage of code frequencies compared to their time-talked. The coding instances indicate the different topics that they talked about, so in Carl's case, he may have talked at length about one aspect of a variable in the data, whereas Edward would make brief contributions to lots of different topics, usually related to task management (section 4.2.2). For Edward this is indicative of his role in the group, which was more focussed on the overall management of the project than the discussion of the individual management of the tasks. Hitchens was the most active member of the group online, which is not counted in the time-talked from the meetings. During the interviews it became clear that the group members felt that both too much surface-level participation (in the case of Carl)<sup>33</sup> and too little (in the case of Nathan)<sup>34</sup> were problematic. Hitchens was not criticised for his surface-level of participation, but Carl did have problems with *how* he participated.<sup>35</sup> The only group member whose proportion and form of surface-level participation was not criticised by the others was Edward.

#### 4.2.2 Task Management

From the start of the project Edward led the management of the group's meetings and discussions as to who would do which task (see Table 28 & Figure 9).<sup>36</sup> However, as the project progressed, both his involvement in the task management and the overall instances of task management itself, declined (compared to other discussion activity, see section 4.2.6). However, towards the end of the project Carl and Hitchens also became involved in the task management as Edward's role changed. Edward at that time focussed on compiling and proofreading the project report (see Table 27 for a list of the main events from Task Management).

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<sup>33</sup> Hitchens Interview, 7:55 – 8:10

<sup>34</sup> Edward Interview, 22:14 – 22:49

<sup>35</sup> Carl Interview, 45:01 – 45:24

<sup>36</sup> Their initials indicate the participants. Stage 5 is absent from this figure because there were no instances in the final online communications.

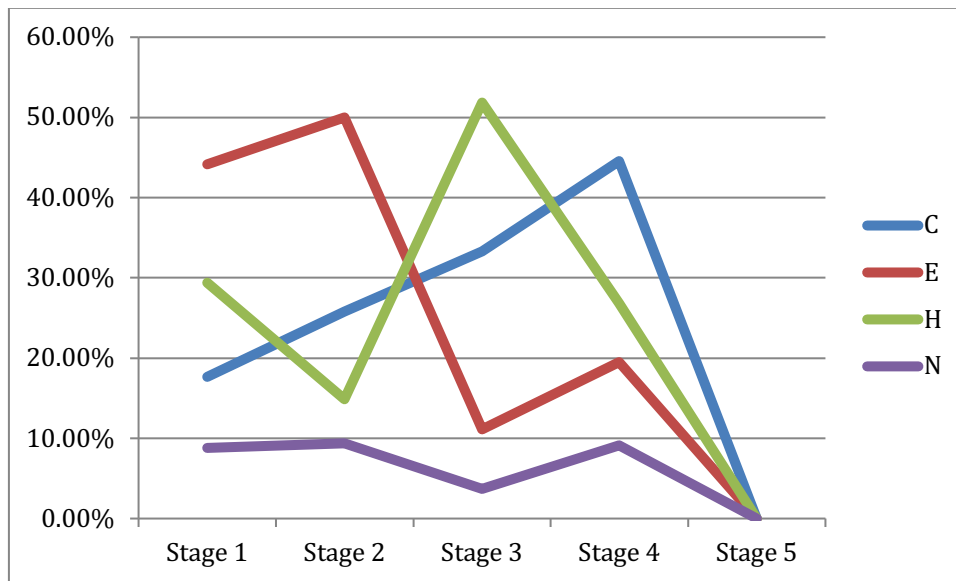
Table 27 - Main Points from Task Management

Stage	Main Events
<b>Stage 1</b>	<ul style="list-style-type: none"> <li>- Edward started managing the project.</li> <li>- The group agreed they should be flexible and open to ideas.</li> </ul>
<b>Stage 2</b>	<ul style="list-style-type: none"> <li>- There were several occasions where the students were unhappy about tasks allocated to them, but they did not disclose it to the others (see Incident One, section 4.3.1)</li> <li>- Edward continued to manage the team and the meetings, although Carl also helped.</li> </ul>
<b>Stage 3</b>	<ul style="list-style-type: none"> <li>- Carl and Hitchens disagreed over the task allocation, but as the disagreement developed further it was clear they also disagreed over the task process (see Incident Two, section 4.3.2).</li> <li>- Edward's role changed, and he became a mediator between Carl and Hitchens.</li> </ul>
<b>Stage 4</b>	<ul style="list-style-type: none"> <li>- The group talked about more than one task at a time online but in meetings the group still focussed on one task at time.</li> <li>- Carl began to coach the others for their presentations, and Hitchens became more involved in the model development.</li> <li>- Edward managed the project less and focussed more on compiling the report.</li> </ul>
<b>Stage 5 – post project</b>	<ul style="list-style-type: none"> <li>- The students had similar impressions of each other's roles, except for Carl who was perceived differently by each of the students.</li> </ul>

Table 28 - Task Management Codes Across the Project (N=584)

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Total & Mean
<b>Carl</b>	6 17.65%	33 25.78%	9 33.33%	176 44.56%	0 0%	224 38.36%
<b>Edward</b>	15 44.12%	64 50.00%	3 11.11%	77 19.49%	0 0%	159 27.23%
<b>Hitchens</b>	10 29.41%	19 14.84%	14 51.85%	106 26.84%	0 0%	149 25.51%
<b>Nathan</b>	3 8.82%	12 9.38%	1 3.70%	36 9.11%	0 0%	52 8.90%
<b>Total</b>	34 100%	128 100%	27 100%	395 100%	0 100%	584 100%

**Figure 9- Percentage Involvement in the Task Management for Each Member During Each Stage**



#### **4.2.3 Task Discussion**

During the first stage the group members shared what might be affecting their work outside of the project, however, this did not continue when it could have helped later on. During Stage Two Carl dominated the task discussion. However, Hitchens felt that he was not being allowed to talk because Carl was talking so much (see Incident One, section 4.3.1). Table 29 below provides a list of the main events related to Task Discussion during the project. Table 27 and Figure 10 show the percentage involvement of each of the team members in the Task Discussion across the four stages (signalled by their initials). This shows that Carl and Hitchens had the most involvement in the task discussion, and that their levels of surface participation in this area rose and fell together in stages 3 and 4. Edward's surface-level of participation in the task discussion was lower, but not as low as Nathan's, which was the lowest throughout the project.

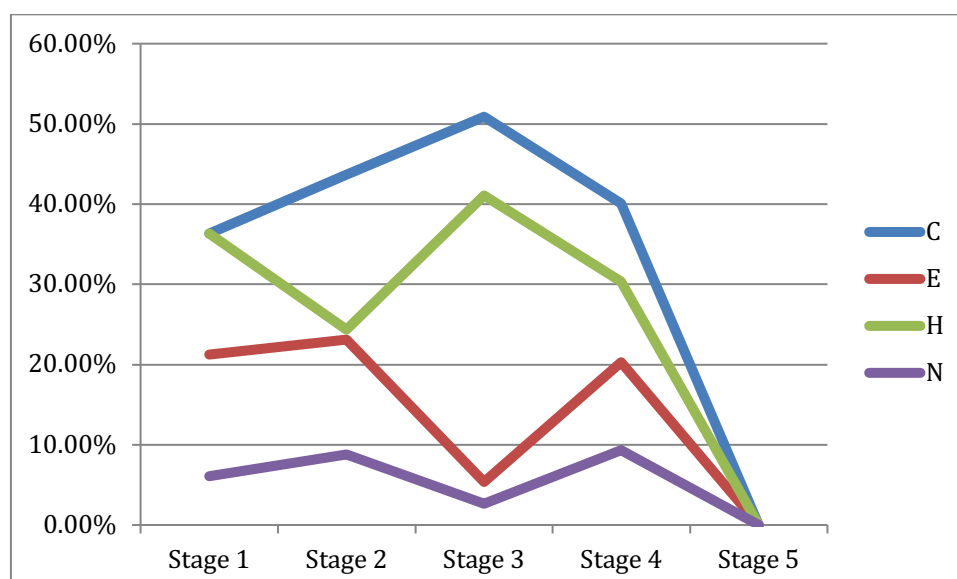
Table 29 - Main points from Task Discussion

Stage	Main points
<b>Stage 1</b>	- The group shared what might be affecting their work outside of the project
<b>Stage 2</b>	- Carl dominated the discussion about the task in the meetings - Hitchens shared the most information online.
<b>Stage 3</b>	- Hitchens told the others that he believed they should start the model development again from scratch (see Incident Two, section 4.3.2). - The task discussion was hindered by a prolonged disagreement between Carl and Hitchens over how to do the project.
<b>Stage 4</b>	- The task discussion progressed quite smoothly, and it often mingled with humour. - The majority of task discussion towards the end was focussed on submitting the report and practicing the presentation.

Table 30 - Task Discussion Codes Across the Project (N=1884)

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Total & Mean
<b>Carl</b>	12 36.36%	104 43.70%	57 50.89%	601 40.04%	0 0%	<b>774</b> <b>41.08%</b>
<b>Edward</b>	7 21.21%	55 23.11%	6 5.36%	304 20.25%	0 0%	<b>372</b> <b>19.75%</b>
<b>Hitchens</b>	12 36.36%	58 24.37%	46 41.07%	456 30.38%	0 0%	<b>572</b> <b>30.36%</b>
<b>Nathan</b>	2 6.06%	21 8.82%	3 2.68%	140 9.33%	0 0%	<b>166</b> <b>8.81%</b>
<b>Total</b>	33 100%	238 100%	112 100%	1501 100%	0 100%	<b>1884</b> <b>100%</b>

Figure 10 - Percentage Involvement in the Task Discussion for Each Member During Each Stage



#### 4.2.4 Rapport-related Communication

Rapport was important throughout the project, both for its absence and its presence. At the beginning of Stage 2 there was only one pre-planned attempt to build rapport and that was by Nathan, but it went unnoticed by the others. Nathan brought juice for the other group members at the start of their first joint meeting (meeting 3), but none of the others realised that it was for them.<sup>37</sup> Then Hitchens and Carl had a conflict in Stage 3 and the rapport between them was damaged (see Incident Two). In the reconciliation, mediated by Edward, Hitchens realised that how his messages were phrased was important. After the conflict the group developed a much better rapport, and there were many instances of humour as well as some evidence of interpersonal sensitivity by Carl. However, afterwards, Carl said that he would have prioritised completing the report over maintaining a good team ethos.<sup>38</sup> Table 31 provides a list of the main events related to Rapport-related Communication during the project. Figure 11 and Table 32 show the percentage involvement of each of the team members in the Rapport-related Communication across the four stages (signalled by their initials).

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<sup>37</sup> Meeting 3, Field notes, the participants also did not realize when it was discussed during the interviews.

<sup>38</sup> Carl Interview, 57:16 – 58:41

Table 31 - Main Rapport-related Communication Events

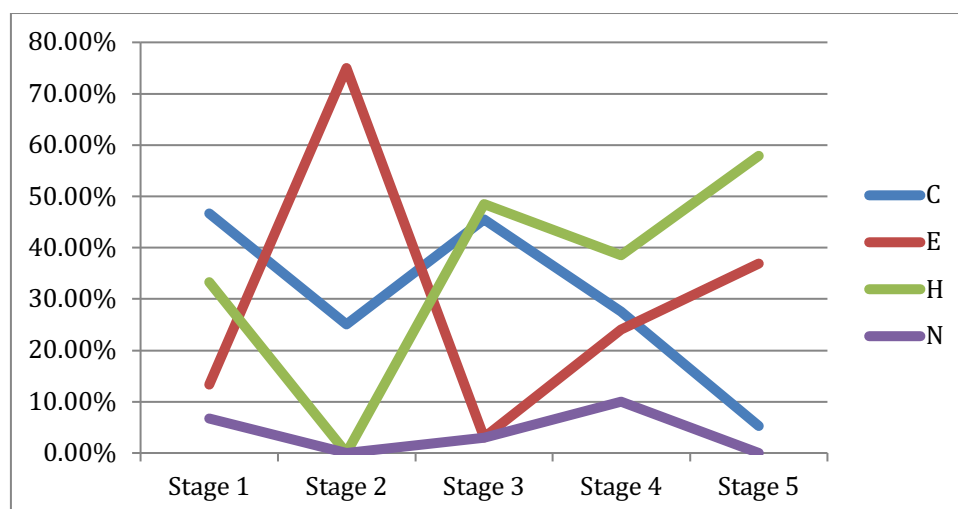
Stage	Main points
<b>Stage 2</b>	- Only Nathan tried to build rapport in the group at this stage through bringing drinks for the others to the first formal meeting, but the gesture went unnoticed.
<b>Stage 3</b>	<ul style="list-style-type: none"> <li>- Hitchens used rapport-related communication online, but Carl perceived it as being patronising (see Incident Two).</li> <li>- Carl and Hitchens became more intent on disagreeing with one another than progressing with the task.</li> <li>- Hitchens learnt that how he came across in his messages was not how he intended.</li> <li>- Carl accepted an apology that Hitchens did not fully offer.</li> <li>- Carl did not think the reconciliation solved their problems, although the others did.</li> </ul>
<b>Stage 4</b>	<ul style="list-style-type: none"> <li>- The instances of rapport during this stage increased massively.</li> <li>- The types of rapport-based communication also expanded.</li> <li>- Humour and sentiments were the most common forms of rapport communicated.</li> <li>- Carl demonstrated that he was aware of interpersonal sensitivities.</li> <li>- The group engaged in banter.</li> </ul>
<b>Stage 5 – post project</b>	<ul style="list-style-type: none"> <li>- Carl said if he had to choose between team ethos and completing the report he would complete the report.</li> <li>- Hitchens said he had learnt to think about how his messages may be received.</li> <li>- Edward felt they needed to communicate more face-to-face.</li> </ul>

Table 32 – Relationships Codes Across the Project (N=595)

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Total & Mean
<b>Carl</b>	7 46.67%	2 25%	15 45.45%	143 27.50%	1 5.26%	<b>168</b> <b>28.24%</b>
<b>Edward</b>	2 13.33%	6 75%	1 3.03%	125 24.04%	7 36.84%	<b>141</b> <b>23.70%</b>
<b>Hitchens</b>	5 33.33%	0 0%	16 48.48%	200 38.46%	11 57.89%	<b>232</b> <b>38.99%</b>
<b>Nathan</b>	1 6.67%	0 0%	1 3.03%	52 10.00%	0 0%	<b>54</b> <b>9.08%</b>
<b>Total</b>	15 100%	8 100%	33 100%	520 100%	19 100%	<b>595</b> <b>100%</b>



**Figure 11 - Percentage Involvement in the Rapport-related Communication for Each Member During Each Stage**



#### 4.2.5 Uncertainty

The students most frequently indicated their uncertainty during the three middle stages of the project (see Table 35 and Figure 12). In Stage 2 only Hitchens explicitly expressed uncertainty about his own ability, whereas the others' uncertainty was more implicit. In Stage 3 there was uncertainty between Carl and Hitchens over what Hitchens was trying to do with the model development. However, this uncertainty was not articulated openly between them. In the fourth stage, after Hitchens and Carl had reconciled, there was an increase in the number of clarification checks by both of them, although fewer instances of expressing explicit uncertainty. Table 33 provides a list of the main events related to uncertainty during the project. Table 35 at the bottom of this section shows the instances of clarification checks (A sub code of uncertainty) for each of the participants. This is particularly important for showing how often the students checked if they understood each other during the different stages of the project. This relates to the learning incidents below because it shows, for instance, that in stage three there were very few clarification checks (when the students had a disagreement), and that overall Nathan, who had lower levels of comprehension due to his English language ability, performed the fewest clarification checks.<sup>39</sup> The Uncertainty codes also relate to the competence of building shared knowledge and mutual trust, discussed further in the incidents below.

<sup>39</sup> This sub code is also relevant in Case Study Two

Table 33 - Main points for Uncertainty

Stage	Main points
<b>Stage 2</b>	<ul style="list-style-type: none"> <li>- All of the students revealed uncertainty about the task.</li> <li>- Only Hitchens said when he was uncertain of his own ability to perform a task.</li> <li>- There were many instances of checking the information for the project, indicating uncertainty with the work in the initial stages.</li> <li>- There some incidents of undisclosed uncertainty about task allocation (see Incident One, 4.3.1).</li> </ul>
<b>Stage 3</b>	<ul style="list-style-type: none"> <li>- The group struggled to deal with unexpected news, even though they had agreed to be flexible (see Incident Two, 4.3.2)</li> <li>- Carl's initial reaction was to oppose Hitchens' suggestions.</li> </ul>
<b>Stage 4</b>	<ul style="list-style-type: none"> <li>- There was an increase in the number of clarifications and checks by Hitchens and Carl during this stage.</li> <li>- There were fewer explicit instances of communicating uncertainty during this stage.</li> </ul>

Table 34 - Uncertainty Codes Across the Project (N=420)

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Total & Mean
<b>Carl</b>	1 20%	42 36.84%	8 47.06%	126 44.84%	0 0%	177 42.14%
<b>Edward</b>	0 0%	39 34.21%	2 11.76%	56 19.93%	0 0%	97 23.1%
<b>Hitchens</b>	4 80%	20 17.54%	3 17.65%	70 24.91%	3 100%	100 23.81%
<b>Nathan</b>	0 0%	13 11.40%	4 23.53%	29 10.32%	0 0%	46 10.95%
<b>Total</b>	5 100%	114 100%	17 100%	281 100%	3 100%	420 100%

Figure 12 - Percentage Expression of Uncertainty for Each Member During Each Stage

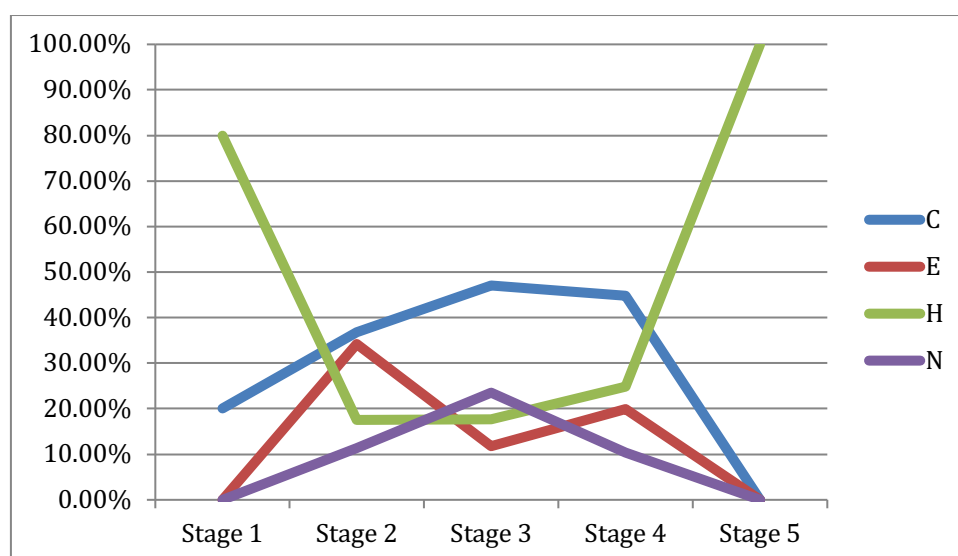


Table 35 - Coded Instances of Clarification Checks in Each Stage (N=203)

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Total
<b>Carl</b>	0	19	8	42	0	69
<b>Edward</b>	0	25	3	23	0	51
<b>Hitchens</b>	0	13	3	43	0	59
<b>Nathan</b>	0	9	0	15	0	24
<b>Total</b>	0	66	14	123	0	203

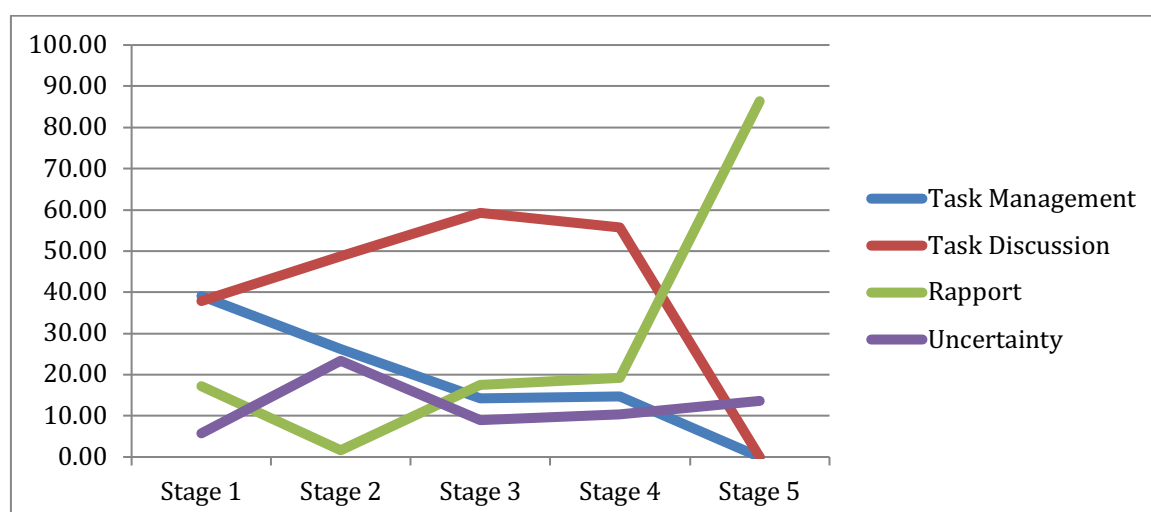
#### 4.2.6 Overall Inductive Coding Results for the Whole Project

In this section will briefly look at the overall progress of the project, comparing the frequencies of the different codes with each other. In Table 36 and Figure 9 below show that the group prioritised Task Discussion and Task Management over Rapport-related Communication and Uncertainty in the early stages of the project. However, from Stage 3 Rapport-related Communication occurred more often than Task Management, while the indications of Uncertainty among the group remained relatively stable.

Table 36 - All Thematic Codes Across the Project (N=3483)

	All Codes					
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Total & Mean
<b>Task Management</b>	34	128	27	395	0	<b>584</b>
	39.08%	26.23%	14.29%	14.65%	0%	<b>16.77%</b>
<b>Task Discussion</b>	33	238	112	1501	0	<b>1884</b>
	37.93%	48.77%	59.26%	55.65%	0%	<b>54.09%</b>
<b>Rapport-related Communication</b>	15	8	33	520	19	<b>595</b>
	17.24%	1.64%	17.46%	19.28%	86.36%	<b>17.08%</b>
<b>Uncertainty</b>	5	114	17	281	3	<b>420</b>
	5.75%	23.36%	8.99%	10.42%	13.64%	<b>12.06%</b>
<b>Total</b>	87	488	189	2697	22	<b>3483</b>
	100%	100%	100%	100%	100%	<b>100%</b>

**Figure 13 – Comparison of Instances of Main Thematic Codes Across Five Stages**



#### **4.2.7 Significance of the Results of the Inductive Coding**

Analysing the data in this way presented a very different picture of how students act during intercultural teamwork projects compared to other research (see Discussion chapter for an in-depth discussion of this). The surface participation levels show a quite uneven distribution of the talk time and of the coding frequencies. Carl had the highest surface-level of participation, but the majority of the team members did not see him as the team leader, they viewed it as Edward (see Table 22). Nathan had the lowest surface-level of participation but mentions of free-riding were absent from the interviews with the participants, recognising, as discussed in Incident Three, 4.3.3, that there was a language issue instead. Task Management seemed relatively uncontroversial from observing the meetings but was revealed as contentious at times during the interviews (see Incident One). Task Discussion was controversial for a number of reasons, as revealed through Incident Two. It was here that the dominance of one group member of the discussion was problematic, and it can be seen in the longitudinal data that this was changed after the disagreement, and Hitchens and Carl then both became more involved in the task discussion than the others. Rapport-related Communication, which was discussed very little in the interviews and during the incidents, was revealed during the inductive analysis to be important in understanding the lead up to the disagreement (low level of rapport-related communication), and then the change after the disagreement, where the instances of rapport increased. The significance of uncertainty

is less clear from the inductive coding, and it was only through triangulation with the interview data that it became clear that Hitchens and Carl felt uncomfortable voicing uncertainty in the early stages of the project (see Incident One, 4.3.1). From these results it is clear that the inductive data facilitated the understanding of how the students acted during their intercultural teamwork (but not a comprehensive understanding). This is later compared with other research in the Discussion chapter. The value of this approach is that it also facilitated the understanding of the different incidents analysed for development of intercultural competence in the second part of this case study below.

### **4.3 Results of the Deductive Analysis of the Critical Incidents with the Stimulated Reflection Interviews**

In this part of the chapter I will begin to answer the second research question concerning the development of intercultural competence from critical incidents. The intercultural competencies are taken from the GPCF (Spencer-Oatey & Stadler, 2009), and the analysis of development is taken from the theory of critical incidents and Taylor's model of intercultural competence development (1994a). Presented below are the results from this deductive stage of the analysis, which forms a first step in exploring the extent to which experiences of working in multicultural teams facilitate the development of 'Global Graduates.' The learning from each incident is summarised in a table at the end of each part. These tables detail the involvement of the students in the different incidents, their reflection, and the evidence of learning from these incidents. In these tables, the third, fourth and fifth columns represent stages two, three and four in Taylor's model for the development of intercultural competence. It is important to note that "no evidence" of learning does not mean definitively that no learning took place, or that no learning may take place in the future for these students if they reflect on their experiences further. It means that during the interviews, and in the longitudinal data, the students did not provide evidence of development that was apparent to the researcher.

#### **4.3.1 First Incident**

The first incident took place during Meeting Four. Carl had been talking at length about his work on the model development prior to this incident. While Carl was talking,

Hitchens privately disagreed with Carl's comments and questioned his findings on two occasions during the meeting, but it did not lead to a change in their decision-making.

The incident itself began with a discussion of the region variable.<sup>40</sup> After some discussion on what they could do with it, Carl volunteered himself to spend some time investigating it. However, Hitchens did not hear Carl saying that he was willing to do this work and volunteered himself instead. Edward, who was allocating the tasks, did not understand Carl was volunteering himself and agreed that Hitchens could do the work (see Transcript 1). The important points of the transcript are lines 2 and 6 (where Carl volunteered himself to research the region variable), and then lines 8 and 9 (where Hitchens then offered to do the task instead). After this incident Hitchens was allocated the work on the region variable. However, after the meeting Hitchens also did some work on the development of the model that would challenge Carl's work, including the process for the development of the model that they had decided on in the meeting.

**Transcript 1 - Edward, Carl and Hitchens, M4, 43:48 - 44:44**

1	C	Maybe as an action coming from this meeting for Monday one person's
2		role is to go away and look at region... So I'm happy to have a look at
3		region coz I think there's a lot we can do with that. You can combine
4		regions, you can just take it out altogether but obviously it's going to
5		take a lot of work to support the models and combine them altogether so
6		I'm happy to look at that.
7	E	Let's do that.
8	H	Erm, I can do that, I have to correct my code first for that other part but I
9		can take on that part sure.
10	C	Okay.
11	H	Coz I'm, I am concerned about region. I mean I mentioned this many
12		times actually I was the first to bring this up to [the lecturer] as when
13		she started like erm posting on the forum. I think she doesn't like giving
14		unfair advantage or something, but yeah I think she does agree that
15		region has to be dealt with.
16	C	Erm.
17	E	Okay.
18	C	I think we need to work on trying to sort out a co-linearity and multi-
19		linearity. Nathan do you want to have a look at, because you've done the
20		correlation...

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<sup>40</sup> The region variable grouped countries into regional categories (e.g. Europe, Africa etc.), however, the students could, if it was justified, change the regional categories (e.g. divide Europe into East and West Europe, or group Europe with North America).

#### 4.3.1.1 Learning and reflections on first incident

The first interesting aspect of this incident concerns the subjectivity of a learning incident. During the stimulated reflection interviews, only Carl remembered this incident clearly, commenting:

*I was quite interested in doing it myself and I didn't particularly want to give it to someone as an afterthought. I didn't want to give it as a group action as in "you can do this, this, this, but also look at region if you have time. I was a bit surprised that Hitchens. I didn't know really what to quite make of Hitchens coming out with that, looking back at it, I think at the time I would definitely thinking, I seen you speaking briefly to the lecturer about it, you've clearly had a think about it yourself... I was a bit surprised that Hitchens came out and kind of thought "no, I fancy that instead." And I thought... I didn't really want to be the one arguing about petty things like that, so I didn't really want to be tugging it away from him, because I think if I'd come back to him and said, "no I fancy that" it'd be like "I want that" "No, I want that," we'd be sort of petty squabbling."<sup>41</sup>*

Here Carl clearly indicated that he did not know how to contest the task allocation without confrontation, and without being perceived as petty. Carl demonstrated a level of self-awareness regarding how the others could have perceived him. However, he also needed to develop his ability to negotiate task allocation when he disagreed with another group member, but he did not realise that he had a shortcoming in relation to this skill. In the second main incident (see section 4.3.2) the strategy Carl employed to negotiate task allocation, when he disagreed with the work others had done, was confrontational.

The other three members of the group were initially surprised that I showed them this clip and had not thought that anything significant had happened at the time. Then upon viewing the clip, each of them realised that it had had some impact on the group dynamics.<sup>424344</sup>

Nathan's reflection was that the incident might have contributed to the disagreement between Carl and Hitchens that occurred later.<sup>45</sup> The clip did not cause him to reflect on

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<sup>41</sup> Carl Interview, 5:05 – 7:15

<sup>42</sup> Hitchens Interview, 8:17 – 8:47

<sup>43</sup> Edward Interview, 4:56 – 4:58

<sup>44</sup> Nathan Interview, 4:36 – 4:44

<sup>45</sup> Nathan Interview, 4:36 – 4:44

his own behaviour at the time, except on his level of participation. Nathan was late to the meeting and said arriving late affected his ability to participate in the group discussion.<sup>46</sup> Nathan's participation was also limited by his linguistic ability. As a non-fluent English speaker, he admitted that he could not follow people who were speaking too fast and recognised that that was a problem.<sup>47</sup> So Nathan's preparedness to participate was negatively affected by being late, but then it was compounded by his English language ability, which prevented him from being able to listen attentively to what was being discussed.

When Edward reviewed the clip it caused him to reflect on how actively he was listening to the group discussion, commenting, "I didn't pick up on that."<sup>48</sup> He then went on to reflect further that he had been trying to do too many things at once (both taking the minutes and facilitating discussion), which meant that he was unable to listen attentively to everything that was being said. So, for Edward the opportunity to reflect gave him a clear moment to pinpoint an issue that was preventing him from attentively listening, from which he could adjust his behaviour in the future.<sup>49</sup>

Hitchens' review of the incident was slightly different. When he was initially shown the clip, he began to discuss the reservations he had had about the model development. He did not engage with the content of the clip itself, but began to explain his actions subsequently:

*If I remember I was quite a bit tired to be honest because Carl was talking for about 30-40 minutes on something we both did, and I was constantly staring at my laptop. Most of the stuff he was saying did not really agree with the stuff I said, that I came up with and I thought maybe I should give this some more time because I didn't feel that my part was very strong to influence the judgment and, that's when the fall out happened. The interesting thing is I didn't agree at all with the, with how the model development was going and I think what was very stupid, I didn't mention it at the meeting, I don't know why I didn't mention it, I felt I wanted to do a bit more research on that and then sort of see whether my point kind of stood, and that's what I did as soon as I went home.<sup>50</sup>*

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<sup>46</sup> Nathan Interview, 4:45 – 5:43

<sup>47</sup> Nathan Interview, 43:25 – 43:57

<sup>48</sup> Edward Interview, 4:56 – 4:58

<sup>49</sup> Edward Interview, 18:30 – 18:41

<sup>50</sup> Hitchens Interview, 4:38 – 5:27



Then, when he was redirected back to the clip itself, he realised that he had not heard Carl volunteering himself at the time.<sup>51</sup> Hitchens then commented that he found it difficult to listen to someone talking for a long time.<sup>52</sup> So here Hitchens demonstrated awareness of two limitations in his behaviour during the group project. The first was not disclosing when he disagreed with what Carl was saying, and the second (although this was after being given stimuli for reflection) was not listening to everything that was being said. In the second incident will show that Hitchens manner of disclosure was not well received by Carl, and that he had continuing limitations in his ability to listen or read carefully what the other group members were saying.

#### ***4.3.1.2 Conclusions from the first incident***

This first incident brought into question the development of several competencies for the participants (see competencies in Table 37). For Carl the main competencies in question were how to negotiate the task allocation without being confrontational, and he also demonstrated self-awareness in how he may be perceived for disagreeing. For Edward, the first competency was active listening, which became apparent to him on reviewing the incident. He reported that this was partly due to being unable to manage two simultaneous tasks. Edward was able to reflect on this, and how he might change his behaviour to rectify this later on. Hitchens realised that he had not disclosed his reservations about the direction the project was taking during this incident. However, he only became aware that active listening was a problem when, like Edward, he was given the opportunity to review the incident. Nathan also did not realise that there was anything significant to the incident until he was given a chance to review it. However, upon reviewing the incident, it became apparent that a few competencies were relevant to his participation and understanding of this event. The first was active listening, which was compounded by another competency - his English language level.

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<sup>51</sup> Hitchens Interview, 7:05 – 7:13

<sup>52</sup> Hitchens Interview, 7:55 – 8:10

**Table 37 - Intercultural Competencies Relevant to First Learning Incident**

<b>Person</b>	<b>Involvement in Incident &amp; evidence of dissonance causing stress</b>	<b>Intercultural Competencies</b>	<b>Cognitive Orientation (Reflective/Non-reflective) &amp; Report</b>	<b>Evidence of Learning?</b>
<b>Carl</b>	Very involved, and could remember the incident clearly in the interview and experienced dissonance and indecision	Building Shared Knowledge and Mutual Trust	Reflective - Thought Hitchens may have good reason to volunteer	Not Evident in process behaviour or of intended behaviour change in interview
		Self-Awareness	Non-reflective - Worried about appearing petty	Not Evident (pre-existing competency)
		Stylistic Flexibility	Reflective – but unsure how to disagree	Not Evident (unaware he should improve this)
<b>Edward</b>	Present at the meeting, but missed the key point in the conversation (no experience of dissonance at time, but did on reflection)	Active listening	Reflective - Was unaware of what was being said - was managing too many simultaneous tasks	Will do fewer tasks next time
<b>Hitchens</b>	Remembered the incident, but for the fact that he disagreed with Carl, not for his role in the exchange (no experience of dissonance)	Disclosure/Non-Disclosure	Reflective - Did not disclose misgivings, was unsure if correct	Realised he should have said something
		Active Listening	Non-reflective - Was unaware of what was being said	Not Evident, blamed Carl for talking for too long
<b>Nathan</b>	Did not remember the incident, did not initially perceive the clip to be significant (no experience of dissonance)	Language proficiency	Non-reflective - See Incident Three (section 4.3.3)	Yes, but not specifically to this incident (see Incident Three)

#### **4.3.2 Second Incident**

This incident began after meeting four. Carl and Hitchens had a prolonged disagreement online, followed by a face-to-face reconciliation. The whole incident took place over four days. The initial disagreement began with Hitchens stating that they needed to start

their model development “from scratch.”<sup>53</sup> Carl disagreed, and then their discussion grew into a disagreement over a range of issues. As the disagreement progressed, they began to disagree over issues on which they had previously shared the same opinion.<sup>54</sup> This indicates that the disagreement was not only transactional, but also had an interpersonal, relational aspect. To help resolve the disagreement Edward communicated with Hitchens and Carl privately and was able to mediate between the two of them. Then at the following meeting they discussed their disagreement and reconciled (although not completely). The section below will detail how the event unfolded over the course of a few days.

In the previous incident Carl had said he was reluctant to disagree with Hitchens over the task allocation because he was afraid that it might become “petty squabbling.” The disagreement between Hitchens and Carl during this second incident seemed on the surface to be task related, but it also revealed interpersonal conflict between the two. During their disagreement, they each maintained that the aim was not to find a ‘perfect model.’ Yet each, within a few hours of each other, accused the other of trying to do this.<sup>55</sup> In these instances of interpersonal disagreement, their progress on the task stalled. After their online disagreement, at the next meeting they reconciled. However, during the reconciliation discussion, their disagreement continued as Carl disputed with Hitchens over the implied tone of Hitchens’ messages (“arrogant and patronising”).<sup>56</sup> Carl then modelled for Hitchens how he should have disagreed with the way they were progressing with the task.<sup>57</sup>

During the reconciliation Carl disclosed the effect Hitchens’ messages were having on his emotions: ‘it felt like you were talking down to me.’<sup>58</sup> To this Hitchens replied that this was not his intent. However, this was not evident during the disagreement itself, meaning that their misunderstanding during the discussion went unresolved until a few days later. During the interview Carl said that he still felt that their relationship had

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<sup>53</sup> Hitchens and Carl Facebook Replies, 24/01/2015

<sup>54</sup> *ibid*

<sup>55</sup> *ibid*

<sup>56</sup> Meeting Five, 0:14 – 14:29

<sup>57</sup> Meeting Five, 11:34 – 12:40

<sup>58</sup> Meeting Five, 11:34 – 12:40

issues after the reconciliation, “even after this point it was still quite tense.”<sup>59</sup> However, he did develop an appreciation of Hitchens’ personality from this experience, commenting, “I think both of us are quite forceful in our opinions. After this incident there’s been a couple of times where that’s happened.”<sup>60</sup>

The role that Edward played during this incident was very important. Edward’s surface-level participation during this incident was less than Hitchens’ and Carl’s; however, he intervened in the discussion at three main points to try to resolve the conflict. Edward was also communicating privately between Carl and Hitchens throughout to manage the disagreement.<sup>61</sup> In order to better understand this incident, I will summarise these interventions below.

The first intervention was early in the disagreement, as a reply to a question put to the group by Carl to clarify what they thought the aims of the project were (see Facebook Reply 1). The second occasion was later in the disagreement when he stated, “I am not seeing any conflicting opinions here,” (see Facebook Reply 2) in order to try and mitigate the disagreement between Carl and Hitchens. The final contribution he made was during the reconciliation discussion when it seemed like Carl and Hitchens were about to disagree again. Edward asked them to state only their perceptions of what happened, and not treat the disagreement as a set of facts (see Transcript 2).

During the first intervention, Carl attempted to understand why Hitchens was questioning their previous work (lines 1-5). Carl suggested that perhaps they had different goals and wanted Hitchens to clarify what his goals for the assignment were. However, before Hitchens replied, Edward intervened with a statement of what he thought their goals were, in an attempt to facilitate the discussion between Hitchens and Carl. However, this intervention actually prevented Hitchens from clearly stating what he thought the goals for the project were. Instead Hitchens only agreed with Edward’s phrasing of the goals (lines 11-13).

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<sup>59</sup> Carl Interview, 22:30 – 22:42

<sup>60</sup> Carl Interview, 27:55 – 28:29

<sup>61</sup> Edward Interview, 18:52 – 19:59

#### Facebook Reply 1 - 24/01/2015

Carl	1 2 3 4 5	Can people clarify exactly what they think our goal of this assignment is and align our thoughts accordingly as I think the reason we have been having problems may not be down to thinking different approaches are correct, but more we have different goals to which each has a different correct approach. Let me know what you think guys.
Edward	6 7 8 9 10	The goal is to fit a model which can be used to interpret why happiness increases due to various variables changing, finding one with a suitably high $R^2$ , BIC/AIC, which follow linear regression assumptions that is also simple enough to interpret. We are trying to find a compromise between simplicity and Model fit.
Hitchens	11 12 13	Exactly, simplicity is vital when fitting a model that is easy to interpret, by anyone, in my mind simplicity arises from fitting a model that is accurate with the least possible parameters, and least possible transformations.

Edward's second intervention was more explicit. After Hitchens and Carl had been in disagreement online for two days, he tried to reconcile their different approaches. In his reply, Edward addressed them explicitly (see Facebook Reply 2). His first statement was targeted at mitigating their disagreement, "I am not seeing any conflicting opinions here." This was a false observation since Carl and Hitchens had spent the past day disagreeing with each other. Before this, Carl and Hitchens had disagreed over many aspects of their project, but the disagreement that Edward focussed on was over using common sense in the development of their model, or academic evidence. Edward reconciled this by saying that a compromise between both was required for their project. This intervention was more successful than the previous one, as the online disagreement between Hitchens and Carl petered out after this.

#### Facebook Reply 2 - Edward, 24/01/2015

Edward	1 2 3 4 5 6 7	I am not seeing any conflicting opinions here. We are aiming to create a simple model. We are introducing terms based on subjective reasoning and tests, and then testing these new models for assumptions and model fit. If they are good enough we are moving onto either more introduction or reduction of terms using other tests. Obviously testing requires interpretation grounded in literature and common sense, which is a compromise that we better discuss as a group.
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Edward's final intervention was during the meeting after the online discussion. At one point it seemed that Hitchens and Carl were ready to argue again, but then Edward intervened and asked them to say what they thought had happened, not try to report what had actually happened (see Transcript 2). During his interview Edward

commented that he did this because “I realised it was going to be a very long discussion if we continued like we were.”<sup>62</sup>

**Transcript 2 - Meeting 5, 5:30 - 6:01**

C	1	So from that I thought I took from that that you were dismissing basically a
	2	week's work.
H	3	I wasn't dismissing it, I was, you have to, you do understand that you have to
	4	start a model from scratch when you do this right? We both did it, like
	5	whenever you do it, like you can't really take the entire full model or
	6	whatever, every time you have to start from scratch.
C	6	It-, we-
E	7	Can- Can we rather than discuss what happened just like say what we
	8	think happened, post it and then just like discuss afterwards.
C	9	Okay. So that's what I thought. Erm...

During this incident Hitchens' language choices were put into question, both by himself and by Carl, who at one point told him how he should have phrased his disagreement.<sup>63</sup> On occasions in both the reconciliation and the interview Hitchens suggested that his linguistic background could have had an effect on how the others understood him.<sup>64</sup> He pointed this out specifically in relation to the phrase “I'll keep you updated.”<sup>65</sup> Hitchens intended this phrase to mean that he was inviting collaboration from the others on the new model that he was developing. However, it was not interpreted that way.<sup>66</sup> During his interview Hitchens commented that although he seemed fluent in English, it was not his first language and sometimes he thought his Cypriot background influenced his word choices.<sup>67</sup> He also said that his previous experience working in the Army could have had an effect. However, this was never disclosed to the other group members during the project.<sup>68</sup>

<sup>62</sup> Edward Interview, 21:46 – 21:50

<sup>63</sup> Meeting Five, 11:34 – 12:40

<sup>64</sup> Hitchens Interview, 24:28 – 24:59

<sup>65</sup> Meeting Five, 10:58 – 11:19

<sup>66</sup> Meeting Five, 11:34 – 11:40

<sup>67</sup> Hitchens Interview, 24:28 – 24:59

<sup>68</sup> Hitchens Interview, 49:44 – 49:51

#### **4.3.2.1 *Learning and reflections from second incident***

This stage of the group's project tested many intercultural competencies among the group members. Some of these were the same as those that were tested during the previous incident, such as attentive listening and negotiating task allocation. There were also other competencies that were challenged through this incident. This includes building shared knowledge and mutual trust, interpersonal attentiveness, and openness to different interpretations. For this incident, because there is a lot to discuss, each student's competency use, and development will be approached separately.

#### **4.3.2.2 *Carl***

Carl was not open to different interpretations regarding Hitchens' tone and intentions whilst he was disagreeing about the model development. During the reconciliation he revealed his preconception of the appropriate way to disagree and felt that Hitchens' way of disagreeing was inappropriate. During the interview and the reconciliation Carl reflected on these experiences from the incident. During the reconciliation he reported that the tone of his replies was affected by the way he perceived Hitchens' tone during the online disagreement (arrogant and patronising).<sup>6970</sup> Then, during the interview, he provided more context to the situation, stating that he was expecting to have a relaxed evening with his friends before he read Hitchens' messages about the project.<sup>71</sup> There are two intercultural competencies that are associated with Carl's perceptions of this incident. The first is that he was not flexible in his understanding of Hitchens' tone of voice through the messages, and even after he had understood Hitchens' intentions, he felt the fault was Hitchens' rather than considering that a contributing factor could have been his misreading of the situation. So, although Carl understood one of the causes of the disagreement, he was unable to reach an abstract conceptualisation of how people need to accept that non-fluent speakers may have a different way of speaking.

The second competency is sensitivity to social context, because Carl did not disclose until afterwards how the contextual circumstances of the disagreement (wanting to

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<sup>69</sup> Meeting 5, 12:05 – 12:35

<sup>70</sup> *ibid*

<sup>71</sup> Carl Interview, 28:58 – 29:42

spend time with his friends instead) had affected his mood. Carl reflected on this during his interview,<sup>72</sup> however, he did not express how this could affect his replies to someone in the future.

Two other competencies that Carl was tested with was acceptance of non-fluent speakers, and interpersonal attentiveness (specifically when to disclose disagreement). During the reconciliation in meeting five, Carl seemed open to Hitchens' suggestion that there was a 'slight language issue' for Hitchens.<sup>73</sup> However, during his interview Carl stated that he did not think that Hitchens' language ability had an impact on how he expressed himself:

*He brought up the fact that English wasn't his first language, but again his English was never really a problem. He brought it up as a potential reason for miscommunication, but I kind of accepted that because I didn't really want to say that "No it wasn't. It was what you were saying that was the problem," because it would have made it worse.<sup>74</sup>*

The quotation shows the two intercultural competencies that are interacting, or even competing. The first was acceptance in relation to non-fluent English speakers, which in this instance Carl did not exhibit (although he was able to in the third incident (section 4.3.3). The second, which Carl did exhibit, was interpersonal attentiveness. During the reconciliation, although Carl privately disagreed with Hitchens' assertion of language contributing to their misunderstanding, he decided not to express it because it would have exacerbated the situation. Had Carl disagreed openly, he believed it could have aggravated Hitchens, and prevented them from reconciling.

There is also another aspect to this specific part of the incident. Carl's response during the reconciliation made it seem that he was accepting of misunderstandings based on Hitchens being a non-fluent speaker, but in fact he was not. At the same time, Carl was being interpersonally attentive, but this was not evident to the others. However, precisely because he was being interpersonally attentive by concealing his true thoughts, none of the other group members realised that he was using this competence because of his concern not to create more discord.

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<sup>72</sup> *ibid*

<sup>73</sup> Meeting Five, 12:46 – 12:49

<sup>74</sup> Carl Interview, 45:01 – 45:24



Another competency that this incident tested was Carl's self-awareness. During the first incident, Carl did not want to disagree because it could have made him appear 'petty.' However, during this incident, Carl was less concerned about how he came across at the time, because he engaged in a prolonged disagreement with Hitchens. That is to say, when he stopped disagreeing with Hitchens on one point of debate, he then disagreed with him on another point, eventually saying he was 'playing devil's advocate.'<sup>75</sup> Hitchens' reply was that he felt Carl was not allowing him to work on the model development.<sup>76</sup> So, Carl was not aware that Hitchens also perceived his disagreement as having the purpose of limiting his opportunities to contribute to this part of the project. The evident limitation to the development of his self-awareness from this incident is that during his interview, although Carl admitted that he talked a lot,<sup>77</sup> (in fact it was almost twice as much as the next most active talker, see Table 25), he did not connect this with how Hitchens may have perceived him and themselves in relation to the work, although he did consider this for Nathan.<sup>78</sup>

Throughout the disagreement, there was a lack of mutual understanding between Carl and Hitchens. Their misunderstanding was over aspects of the project, and the effect their messages were having on each other. At times during the disagreement Carl asked Hitchens to explain his reasoning for certain decisions, and what he thought the aims of the project were (see Facebook Reply 1). So, there is evidence that Carl was aware that there could have been a misunderstanding between them. However, towards the end of the discussion Carl stopped trying to reach an understanding online and said they would discuss it face-to-face.<sup>79</sup> During this incident Carl showed some experimentation with Building shared knowledge and mutual trust in order to reach mutual understanding about the task discussion. However, he did not employ the same tactic to reach mutual understanding about the rapport-related emotional effects that their messages were having on each other, because (as seen above) Carl was not open to different interpretations of this aspect of their communication.

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<sup>75</sup> Carl, Facebook Reply, 24/1/2015

<sup>76</sup> Hitchens, Facebook Reply, 24/1/2015

<sup>77</sup> Carl Interview, 57:16 - 58:41

<sup>78</sup> Carl Interview, 56:11 - 56:48

<sup>79</sup> Carl, Facebook Reply, 24/1/2015

There is evidence of a development in Carl's understanding of Hitchens in terms of his personality and how he worked. During the disagreement he felt Hitchens was 'arrogant and patronising.'<sup>80</sup> However, a few weeks later, in the interview he had changed his views, and described Hitchens as being 'forceful,' and similar to himself.<sup>81</sup> Although Carl did not agree with Hitchens, he adjusted his views to accept that Hitchens would disagree with him forcefully in the future. This indicates a development in Carl's ability to be flexible and accept how Hitchens expressed disagreement, even though he placed more emphasis on Hitchens' personality and did not see it as a possible language issue.

#### **4.3.2.3 Edward**

The competencies that Edward exercised in managing the disagreement between Carl and Hitchens were building shared knowledge and mutual trust, and attuning. During the interview Edward commented that his role in the group was facilitator, and that he usually adopted this role in other group situations.<sup>82</sup> Thus Edward had had experience of facilitating group work before, and in managing differences between group members. During this incident the particular focus of Edward's work was to facilitate Carl and Hitchens in reconciling and integrating their different approaches. Each of his interventions had varying levels of success. The first instance where he intervened in the disagreement did not aid the reconciliation of differences between Carl and Hitchens (see Facebook Reply 1). This first attempt was not successful because it actually prevented Hitchens and Carl from reaching a level of mutual understanding. By intervening first, he did not give Hitchens a chance to state what he thought the goals of the project were in his own words. Here Edward's intervention did seem to bring about agreement on the project goals, but it did not help to clarify where Carl and Hitchens were having problems.

Edward's second attempt to resolve the conflict between Carl and Hitchens was more successful. In his reply he tried to reach a shared understanding from the claims of the other two, stating, "Obviously testing requires interpretation grounded in literature and

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<sup>80</sup> Meeting 5, 12:05 – 12:35

<sup>81</sup> Carl Interview, 27:55 - 28:29

<sup>82</sup> Edward Interview, 0:09 – 0:20

common sense, which is a compromise that we better discuss as a group” (see Facebook Reply 1). This incorporated both of the opposing claims of Hitchens and Carl. He attempted to bring them together through stating that they did not really have opposing views and he showed sensitivity to the context by making sure that they would continue the discussion face-to-face, rather than online as they had been until this point.

When reflecting on the third intervention, Edward did not express any awareness that he was using a particular skill, although his comments revealed a concern with facilitating the discussion process, “I was just trying to get them to talk to each other.”<sup>83</sup> He stated later that he was mediating.<sup>84</sup> However, even though he did this on several occasions during the incident, he did not reflect upon it further, except as to how it would influence the progress of the project. This suggests that the experience did not stimulate him to re-evaluate his ability to reconcile differences and find solutions between differing parties. Since Edward had experience of using this competence before this incident in other contexts,<sup>85</sup> he did not necessarily develop it much beyond his existing capability. However, that existing capability sufficed to resolve the disagreement between Carl and Hitchens at that time.

Another competence that Edward demonstrated during this incident was the ability to attune to how Carl and Hitchens were communicating, in order to appropriately reconcile their differences. This is most clear in the reconciliation when Edward interrupted Carl and Hitchens because he anticipated further disagreement. In Transcript 2, line seven, Edward interrupted Carl’s reply in order to restate how they should talk about what happened over the weekend. There is a link here between the above skill (building shared knowledge and mutual trust), and attuning. In order to exercise the above skill, Edward needed some ability in attuning so that he could understand and react to how Carl and Hitchens would express themselves. Here the two competencies complimented each other to enable Edward to reconcile Hitchens and Carl.

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<sup>83</sup> Edward Interview, 18:30 – 18:41

<sup>84</sup> Edward Interview, 19:59 – 20:01

<sup>85</sup> Edward Interview, 00:09 – 00:20

#### 4.3.2.4 *Hitchens*

Hitchens' reflection on this incident was that he needed to pay attention to his language choices (stylistic flexibility).<sup>86</sup> The incident and the subsequent reflection enabled him to develop insight into the limitations of his previous language choices. Although there was evidence in the interview and from the reconciliation that Hitchens had become aware of the importance of his language choices during group interactions, it is difficult to pinpoint evidence where he was experimenting with this later in the project. This is because choosing appropriate language is a cognitive process and was not verbalised (i.e. he did not use a think aloud technique). So, it is impossible to know the extent to which he thought about his word choices before he spoke them after he had realised that this was important.

The evidence for Hitchens practicing rapport building is the opposite of the evidence for language choice. That is to say, there is very little reflection by Hitchens during the interview on building rapport with the other group members (with the exception of the realisation that it was absent during his communication during the disagreement),<sup>87</sup> but there is evidence of an increase in rapport-related communication (see section 4.2.4) and other actions (e.g. he brought chocolate for the others in meeting five). During the online discussion, what Hitchens posted had little positive relational content. Moreover, when it occurred, he used it as a hedge. For example, Hitchens posted these hedged comments during the disagreement, "Ok, I respect your opinion, but I highly disagree with that statement."<sup>88</sup> And, "I think this group has great potential and we are all a very good team. However, we all have to understand that there is no perfect model."<sup>89</sup> The hedges that accompanied the statements could have appeared perfunctory. Indeed, this could explain why Carl commented during the reconciliation that Hitchens came across as 'dismissive and arrogant, and at times I felt like you were talking down to me.'<sup>90</sup> Hitchens seemed to be attentive to interpersonal issues through hedging, but then exacerbated the situation with the comments that followed. During the interview Hitchens did not reflect on his use of rapport-related communication. However, his

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<sup>86</sup> Hitchens Interview, 24:48 – 24:59

<sup>87</sup> Hitchens Interview, 49:44 – 49:51

<sup>88</sup> Hitchens, Facebook Reply, 24/1/2015

<sup>89</sup> Ibid

<sup>90</sup> Carl, M5, 12:05 – 12:35

behaviour following the disagreement suggested that he had reflected on it in some way and experimented in changing his behaviour. There is a lot of evidence of the increase in his attempts to build rapport following the disagreement (see section **Error! Reference source not found.**). All of the group members in fact increased the number of instances of employing rapport-related communication following this incident. However, Hitchens employed the highest number of instances. This peaked in the final meeting where he had 115 instances of rapport-related communication (compared to C – 66, E – 71 & N – 30). So, there is evidence of competence development following this incident, but the participant did not explicitly discuss the link between the incident and a change in behaviour during the interview.

During the incident, Carl attempted to achieve mutual understanding with Hitchens, although he would not accept different interpretations in meaning. In contrast Hitchens did not attempt to achieve mutual understanding with Carl during the disagreement, but he did accept that what he wrote might not have been interpreted as he had intended it. More accurately, he accepted that his language could have been misinterpreted after the disagreement (when Carl pointed out to him how he came across), but was unreflective of it during the disagreement itself. As explained above, when Hitchens reflected on his need to be aware of his language choices, it was in the sense that it could be a pre-emptive approach to avoid misunderstanding. However, building shared knowledge and mutual trust is a competence that also requires one to reach understanding after a misunderstanding has occurred. During his interview, Hitchens did not reflect on this. On the other hand, there is evidence of increased frequency of clarifications and checks (see Table 35), which suggests that Hitchens recognised its importance after the incident.

#### **4.3.2.5 Nathan**

Nathan's surface-level participation during this incident was very low. Online during the disagreement his sole action was to *like* a post, and he spoke only one word during the reconciliation, to confirm what Carl said he had been working on. Because of his lack of participation, during the interview it was only possible to discuss his interpretation of the events, and hypothetically what he would have done had Edward not been there.

In his interview, Nathan framed the disagreement as part of the task discussion and did not seem aware of the interpersonal element to it.<sup>91</sup> This in part could be due to the fact that he ‘skimmed’ the messages whilst out with friends,<sup>92</sup> but also the lack of attention he paid to what was being discussed by the group in the previous meeting. So, for Nathan there was a continuation of the problem of active listening that was identified in the previous incident. However, he only seemed to realise this upon reviewing the video stimuli and realising that there were aspects to the conversations that he had missed. So, for him, learning from his behaviour on this competence only began when given the opportunity to reflect during the interview. It could also reflect his language ability, and the need to have phrases or conversations repeated so that he could fully understand them.

Nathan’s contribution to the reconciliation was similarly low. Edward commented on it saying, “I don’t really know his role throughout that period.”<sup>93</sup> During his interview Nathan admitted that he would not have been able to mediate between Carl and Hitchens as Edward had done.<sup>94</sup> But he also did not have a sense of how long a reconciliation should take, or how it should go.<sup>95</sup> So, for Nathan, reconciling differences between two groups was only something that he knew (a little) about in the abstract, but had no experience to draw from. The interview gave him the opportunity to reflect, but other than the experience of watching someone else perform this competence, Nathan had little to build on to develop this competence during his group work experience.

#### **4.3.2.6 Conclusions from second Incident**

Table 38 below shows the main competencies relevant to, and developed to some extent, from this incident. Carl and Hitchens were deeply involved in this incident, and it was significant for them in terms of competence development, which is evidenced by the fact that they both learnt from the experience. One of the factors that could have influenced

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<sup>91</sup> Nathan Interview, 6:02 – 7:55

<sup>92</sup> Nathan Interview, 6:03 – 7:02

<sup>93</sup> Edward Interview, 22:14 – 22:49

<sup>94</sup> Nathan Interview, 23:19 – 23:24

<sup>95</sup> Nathan Interview, 23:25 – 23:50

their level of development was that they had the opportunity to reflect on the incident twice, once during their reconciliation, and the second time during the interviews. The level of development was less clear for Edward, who was involved differently, and had experienced this sort of event before. Nathan, who was much less involved in the discussions than the others, also showed the least reflection on the incident, and the least development.

**Table 38 - Intercultural Competencies Relevant to the Second Incident**

Person	Involvement in Incident & evidence of dissonance causing stress	Intercultural Competencies	Cognitive Orientation (Reflective/Non-reflective) & Report	Evidence of Learning?
Carl	Deeply involved in the conflict between him and Hitchens during this incident, and evidence of dissonance and stress.	Self-awareness	Reflective - Explanation of context of receiving message	Evidence of self-awareness through reflection See above
		Disclosure/Non-disclosure	Non-reflective - None	Not Evident
		Building Shared Knowledge and Mutual Trust	Non-reflective - None	Not Evident
		Acceptance	Non-reflective - Did not believe that Hitchens had a language issue	Not Evident
		Interpersonal Attentiveness	Non-reflective - withheld disagreement about understanding Hitchens' language ability	Not learning, it is possible he had learnt to avoid conflict before.
		Flexibility	Reflective, realised that Hitchens' actions were beneficial to the model development	Not of the specific competency, but of learning to be flexible with Hitchens.
		Goal Orientation	Reflective, realised that he and	Evidence specific to this

			Hitchens had different ideas about doing the work	event, but not on the abstract level that this may be important in the future.
<b>Edward</b>	Involved as a mediator trying to resolve the conflict, also messaged Carl and Hitchens privately, but no evidence of dissonance.	Attuning	Non-reflective - Realised disagreement would continue if he did not intervene	Not Evident (Pre-existing Skill)
		Building shared knowledge and mutual trust	Non-reflective - Felt that the reconciliation was successful	Not Evident (Pre-existing Skill)
<b>Hitchens</b>	Deeply involved in the conflict between him and Carl during this incident, evidence of dissonance and stress.	Stylistic Flexibility (possibly also Language Proficiency)	Reflective - Felt there was a language barrier. Both native language and army background may have influenced his communication	Looked to make better language choices
		Rapport Building	Non-reflective – but evidence of learning from change in the level of rapport-related communication.	Realised he needed to pay attention to rapport
		Achieving Mutual Understanding	Non-reflective - None	Not Evident
		Goal Orientation	Reflective, realised that he and Carl had different ideas about doing the work	Evidence specific to this event, but not on the abstract level that this may be important in the future.
<b>Nathan</b>	Less involved than the others, only	Building shared knowledge and mutual trust	Non-reflective - Aware that it happened	Not Evident – first encounter with this skill in this context



	reading the comments (no experience of dissonance).	Active Listening	Non-reflective - Not aware of rapport aspect of disagreement	Not Evident
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### 4.3.3 Third Incident

This incident took place during the group's sixth meeting, and it was a short exchange between Carl and Nathan (see Transcript 3). In this exchange Carl offered Nathan help with his language for the presentation, but he was hesitant in his manner, and repeated that he was worried about coming across as patronising. This was the only time during the group's meetings that anyone explicitly broached the topic of Nathan's language skills. During the interview Carl commented that he was afraid of "pointing out the elephant in the room,"<sup>96</sup> when he discussed it with Nathan. However, Nathan, both at the time and then in the interview (at which Carl was not present), reaffirmed that he did not feel patronised at all.<sup>97</sup> So from both parties it was considered to be a successful conversation on the subject.

#### Transcript 3 - Conversation between Nathan and Carl, M6, 56:40 - 57:10

C	1	Erm, I really don't mean to be like kind of patronising, but like, since
	2	English isn't your first language, if you have problems like writing down,
	3	like sort of getting it erm to make sense or whatever, just give us a shout,
	4	erm I hope that doesn't come across as patronising.
N	5	No, that's alright.
C	6	Erm, and then yeah, on Friday...

#### 4.3.3.1 Learning and reflections from incident

For Carl, two competencies were tested during this incident. The first is interpersonal attentiveness, which is evident in how Carl was clearly aware of a threat to Nathan's personal sensitivities through how he hedged what he was saying, and then repeated that he did not want Nathan to feel patronised. This hedging made it clear to Nathan that Carl was worried about saying something to cause Nathan to feel insulted. The second is

<sup>96</sup> Carl Interview, 41:41 – 41:45

<sup>97</sup> Nathan Interview, 32:18 – 32:51

self-awareness. During the interview Carl commented that at the time he thought, “Is this completely the wrong way?”<sup>98</sup> So he was aware of the possibility that he could come across the wrong way to Nathan in offering him help with his English. Carl was also aware that this approach would not necessarily work with other people, commenting that if he offered Hitchens the same help, he would have done so differently, “me saying “I hope this doesn’t come across as patronising” probably in itself would have come across as patronising.”<sup>99</sup> So he was also aware that this approach was not transferable to other people with different personalities or different English language levels. However, his lack of certainty over whether his approach to address his concerns over Nathan’s language skills suggests that he was inexperienced in situations in which he would offer help to others with their language.

There are two other aspects to note from this incident relating to Carl, and the competencies used in this incident compared to the previous incident. The first is that he was attentive to Nathan’s English language difficulties, but not to Hitchens’. This could be explained by the fact that Nathan’s language difficulties were more obvious than Hitchens’, so he could perceive them more easily. The second aspect is that in this instance Carl’s concern for maintaining a good relationship with Nathan was obvious to Nathan in how he hedged his comments. However, in the previous incident it was not obvious to Hitchens that Carl was trying to maintain a good relationship with him, because only Carl knew that he was publicly agreeing to something he did not actually agree with personally.

For Nathan, the main competence in question from this encounter was language proficiency. Carl had described his English ability as ‘the elephant in the room,’ and offered him help. Carl was concerned enough about Nathan’s language ability to think that it might have an impact on the group’s final mark.<sup>100</sup> In earlier incidents showed that Nathan’s English language ability had had an impact on his understanding of events, and possibly also his low surface-level participation. During his interview Nathan said that he understood what was happening during the group meetings, but also admitted

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<sup>98</sup> Carl Interview, 41:41 – 41:45

<sup>99</sup> Carl Interview, 42:39 – 42:53

<sup>100</sup> Carl Interview, 42:55 – 44:11

to having English language issues.<sup>101</sup> During the group project, each of Nathan's struggles with learning intercultural competencies linked to his ability in the English language. Whilst language skills do not necessarily preclude the development of other intercultural competencies, in this context it seems that they did. This also links to Nathan's participation. It is possible that his level of participation, both at surface-level and the amount he thought about the group processes, was affected by his language skills.

A further competency that was relevant to Nathan is the ability to listen actively. Table 35 shows that Nathan had the fewest instances of clarification checks of all of the group members. So, although he was the group member with the most clearly identified English language issues (and recognised by Carl during this incident (see section 4.3.3), he did not have the ability adapt to an unfamiliar situation. Neither did he seek clarifications when he did not understand, or experiment in order to learn how to seek clarification.<sup>102</sup> This final competency is not specific to the incident, but Nathan's reflection on all of these incidents brought out an appreciation that he needed to develop this skill.<sup>103</sup>

#### **4.3.3.2 Conclusions from third incident**

Table 39 summarises the competencies practiced and developed from the two group members during this incident. Both students remembered this incident, but only Carl showed some learning from it. Nathan was aware of his own problems with his language proficiency but struggled to suggest strategies to enable him to participate more actively in group discussions.

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<sup>101</sup> Nathan Interview, 27:24 – 27:52

<sup>102</sup> Nathan Interview, 28:00-28:24 & 30:34 – 31:08

<sup>103</sup> Nathan Interview, 43:25 – 43:57

**Table 39 - Intercultural Competencies Relevant to the Third Incident**

Person	Involvement in Incident & evidence of dissonance causing stress	Intercultural Competencies	Cognitive Orientation (Reflective/Non-reflective) & Report	Evidence of Learning?
<b>Carl</b>	Very involved, remembered the event clearly, dissonance in uncertainty of how to broach subject	Interpersonal Attentiveness	Reflective - Unsure if approach was correct, but glad it seemed it was.	Not Evident, but it was his first time doing this <sup>104</sup> , so there was some experimentation.
		Self-awareness	Reflective - Reported awareness of how to approach different people in this situation, and showed awareness of his language choices	Experience of working with different people gave him reference to approaching others with similar issue.
<b>Nathan</b>	Very involved, remembered the event clearly, but no experience of dissonance	Language Proficiency	Reflective - Admitted it was a problem that he needed to work on	Not evident, sought advice on language learning from interviewer.
		Active Listening	Non-reflective - Was unaware of what was being said (not specific to this incident)	Not evident, and no awareness of how to improve.

#### 4.4 Chapter Conclusion

This chapter has considered the results of the inductive coding of the first case, and also the development of intercultural competencies amongst the team members from different incidents during the project through deductive analysis. From the inductive coding it was evident that the group had uneven surface-level participation rates. Carl talked the most throughout the project, a factor that influenced Hitchens' decisions in the first incident. It was also evident the group prioritised Task Discussion and Task Management during the early stages of the project, but that Rapport-related

<sup>104</sup> Carl Interview, 41:41 – 41:55

Communication became more prominent towards the end, an aspect of their dynamic that influenced their actions during the second incident. From deductive analysis of the three incidents, several intercultural competencies were relevant to the interactions, and the participants displayed varying levels of reflection and development around these competencies. The main competencies that were relevant to these incidents were:

- Goal Orientation
- Language proficiency
- Active listening
- Building shared knowledge and mutual trust
- Disclosure/Non-disclosure
- Stylistic Flexibility
- Interpersonal Attentiveness
- Self-awareness
- Flexibility

The significance of these findings will be discussed in relation to the Case Study Two in the Cross-Case Analysis chapter, and what these findings contribute in relation to the analytical frameworks will be investigated further in the Discussion chapter.

## 5 Case Study Two - Results and Analysis of Group Two

This chapter will present the results and analysis of the second case study in the same way as the first case study. First, I will introduce the team members, the project that they had to work on, their roles, and summaries of the different stages of their project. Then, I will present the results of the inductive analysis - the coding from the meetings and Facebook interactions. This will be followed by a deductive analysis of five separate incidents during the project in which the students' intercultural competencies were tested using the GPCF, and Taylor's model for developing intercultural competence.

### 5.1 Introduction to the Case

In this case study there were four students working on the project. Their biographical data are in Table 40, and their self-perceived team roles are in Table 41. Their roles throughout the project and individual characteristics are described further in subsequent sections of this chapter.

Table 40 – Group 2 Team member information

Name	Gender	Nationality (Native Language)	Academic Background	Academic Record	Age
Chahel	Male	British (English)	Statistics	2 <sup>nd</sup> in Group	20
Devina	Female	Hong Kong (Cantonese)	Statistics	4 <sup>th</sup> in group	22
Lazar	Male	Bulgarian (Bulgarian)	Maths and Statistics	1 <sup>st</sup> in group	21
Paul	Male	British (English)	Pure Maths	3 <sup>rd</sup> in Group	20

#### 5.1.1 Team Roles

The table below shows the team members' different views of each other's roles. Here it is possible to see how they viewed each other and regarded their own roles (the grey boxes indicate their views of themselves in the project).

Table 41 - Views of each other's roles

Student	Description of role of:			
→	Chahel	Devina	Lazar	Paul
<b>Chahel</b>	An overview role, making sure all the tasks were done <sup>105</sup>	<i>Did not specify role</i>	"Took more of a leadership role" <sup>106</sup>	Did not say <sup>107</sup>
<b>Devina</b>	"He's usually like tell us what to do" <sup>108</sup>	Assistant, <sup>109</sup> Questioning, <sup>110</sup>	<i>Did not specify role</i>	"He will say something he knows about it, when he knows the thing he will talk" <sup>111</sup>
<b>Lazar</b>	"Organiser or like the coordinator" <sup>112</sup>	<i>Did not specify role</i>	"Probably giving some not so standard ideas and trying to interpret what some statistical things mean in the context of our project" <sup>113</sup>	<i>Did not specify role</i>
<b>Paul</b>	Leader <sup>114</sup>	<i>Did not specify role</i>	Leader <sup>115</sup>	Resources Investigator, Questioning things <sup>116</sup>

### 5.1.2 The Project

The project that the students had was the same as that in Case Study One. The students had to develop a statistical model to measure happiness across different countries and write a report about it before presenting to other students about their work. The model required the students to consider different variables and decide on a model that adequately explained the factors that contributed to country-level happiness.

<sup>105</sup> Chahel Interview, 00:28 – 00:52

<sup>106</sup> Chahel Interview, 19:45 – 20:24

<sup>107</sup> In Chahel's interview he grouped Devina and Paul together four times when describing situations, suggesting he saw their positions as similar.

<sup>108</sup> Devina Interview, 6:40 – 6:53

<sup>109</sup> Devina Interview, 17:12 – 17:13

<sup>110</sup> Devina Interview, 1:12 – 1:38

<sup>111</sup> Devina Interview, 06:55 – 07:08

<sup>112</sup> Lazar Interview, 00:54 – 01:18

<sup>113</sup> Lazar Interview, 00:07 – 00:49

<sup>114</sup> Paul Interview, 00:14:51 – 00:14:54

<sup>115</sup> Paul Interview, 00:14:59 – 00:15:04

<sup>116</sup> Paul Interview, 00:00:24 – 00:00:49

### 5.1.3 Stage Summaries

Table 42 below provides a summary of what took place across the different stages of the project. It shows when the meetings took place, how long the meetings lasted, and what happened during each stage.

**Table 42 - Stages of the Team Project**

Stage	Team Action Summary	Meeting No. and Facebook Discussion	Date	Time and Duration
1	Chahel sets up the Facebook group and organises the first meeting	Group Facebook Discussion Starts <sup>117</sup>	9/1/15 – 16/1/15	7 days
		Meeting 1 <sup>118</sup> (Devina absent)	12/1/15	10.00 – 11.00 (1hr)
2	Group begins working on project, allocating jobs and reporting back on their work in meetings	Meeting 2	16/1/15	13.00-14.00 (1hr)
		Meeting 3	20/1/15	09.00-11.00 (2hrs)
		Meeting 4	23/1/15	13.00-14.00 (1hr)
3	Group reaches a decision on their final model	Meeting 5	25/1/15	15.30-17.30 (2hrs)
4	Lazar informs group that they have to revisit decision on model, so they go back over their work and rewrite report accordingly	Meeting 6	27/1/15	16.00-17.00 (1hr)
		Meeting 7	29/1/15	18.00 -?
5	Group perform last minute edits to report and presentation. Chahel posts group photo on the Facebook group, receives positive comments.	Meeting 8, and afterwards Lazar and Chahel together, separate from the other group members Last Facebook comments on project	1/2/15 - 13/1/15	13.15-16.30 (3hrs 15), and on Facebook until 13/1/15

## 5.2 Results of Inductive Coding

Detailed in this section are the results of the inductive coding from the five project stages (see Section 3.6.2 of Methodology) in order to answer the first research question<sup>119</sup> (see also Literature review Chapter, section 2.3.3). These codes were then grouped into

<sup>117</sup> Access to Facebook data was only granted at the end of the project.

<sup>118</sup> Cells shaded in grey are meetings where the researcher was not present.

<sup>119</sup> How do students act in multicultural teams when given a project to complete?



themes (see section 4.2 of Case Study One). The first part of this section presents the different surface participation levels of the group members, in terms of time-talked and coding instances. Then the different students' involvement in task management, task discussion, rapport-related communication and uncertainty are considered. There are links between these themes and the learning incidents below. Some of these will be detailed in this section, but others will not become apparent until reading through the different incidents from section 5.3.1 of this chapter.

### 5.2.1 Surface-Level Participation

The students in the project had varying levels of surface-level participation (see Table 43). Lazar had the highest overall participation in meetings according to time-talked, followed by Chahel and then Paul, with Devina having the lowest surface-level of participation (even lower than the amount of silence across the meetings). Online surface-level participation was quite different, with Chahel having far more coding instances online compared to the others, who each had similar surface levels of participation.

**Table 43 - Time-talked in all meetings & codes on Facebook**

	<b>Time-talked (All Meetings)</b>	<b>Percentage</b>	<b>Codes on Facebook</b>	<b>Percentage codes on Facebook</b>
<b>Chahel</b>	02:19:36	32.65%	259	50.87%
<b>Devina</b>	00:39:59	9.04%	83	15.16%
<b>Lazar</b>	02:49:13	40.43%	81	17.43%
<b>Paul</b>	01:04:46	15.32%	86	16.54%
<b>Silence</b>	00:56:16	9.16%	N/A	N/A
<b>Total</b>	07:03:10	100.00%	509	100%

From the coding instances per person across all of the stages it is evident that although Lazar spoke the most during meetings, Chahel had ten per cent more coded instances of communication on average (see Table 44). This means that although Lazar spoke for longer, he did not make as many different contributions to the discussion (e.g. he would spend time explaining one aspect of the model development at length, rather than discussing lots of different parts of the project). Lazar had the second highest number of instances (but a lower percentage than his average time-talked), and Paul the third

(higher than his average time-talked). Devina had the lowest number of coded instances among the group, but it was slightly higher than her average time-talked.

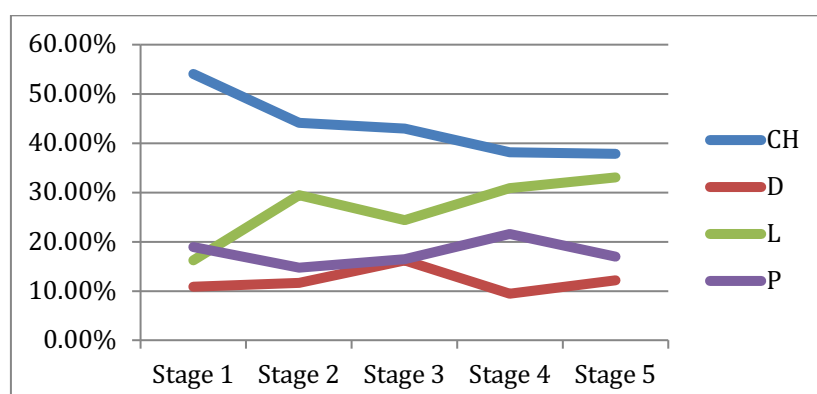
**Table 44 - Coding instances across stages per person (N=4,390)**

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Mean	Mean (Excluding stage 1)
<b>Chahel</b>	20 54.05%	387 44.18%	321 42.97%	330 41.51%	743 38.34%	44.21%	41.75%
<b>Devina</b>	4 10.81%	102 11.64%	121 16.20%	80 10.06%	230 11.87%	12.12%	12.44%
<b>Lazar</b>	6 16.22%	258 29.45%	182 24.36%	241 30.31%	638 32.92%	26.65%	29.26%
<b>Paul</b>	7 18.92%	129 14.73%	123 16.47%	144 18.11%	327 16.87%	17.02%	16.54%
<b>Total</b>	37 100.00%	876 100.00%	747 100.00%	795 100.00%	1938 100.00%	100.00%	100.00%

Figure 14 illustrates how the students' surface participation levels interacted with each other. For example, from Stage 1 to Stage 2, as Lazar's surface participation level rose, the other's declined. It is also clear from the figure that Chahel's surface level of participation declined as the project progressed, whereas Lazar's increased. Paul and Devina's surface levels of participation showed no great increase from one stage to another, both remaining within 6 percentage points of their average.

The surface participation levels provide indications of the level of verbal contributions in discussions of the different group members throughout the project. It also reflects the students' perceptions of each other's involvement in the project. From their perceptions of each other's surface-level participation, some of the students made evaluative judgements about others' effort, understanding, and contributions (see section 5.3.4).

**Figure 14 - Share of Surface-level Participation across the five stages**



### 5.2.2 Task Management

Table 45 shows the main events that took place relating to task management during the project. Chahel or Lazar led the majority of these events, whereas Devina and Paul had very little involvement in this. Table 46 and Figure 15 show the different levels of engagement with task management by the four students throughout the project. It is clear from this table that Chahel led the management of the project. He organised meeting times, and the structure of the meetings. Lazar became more involved in the team management as the project progressed. Paul and Devina played less prominent roles in trying to organise how the project should be managed (see incidents below).

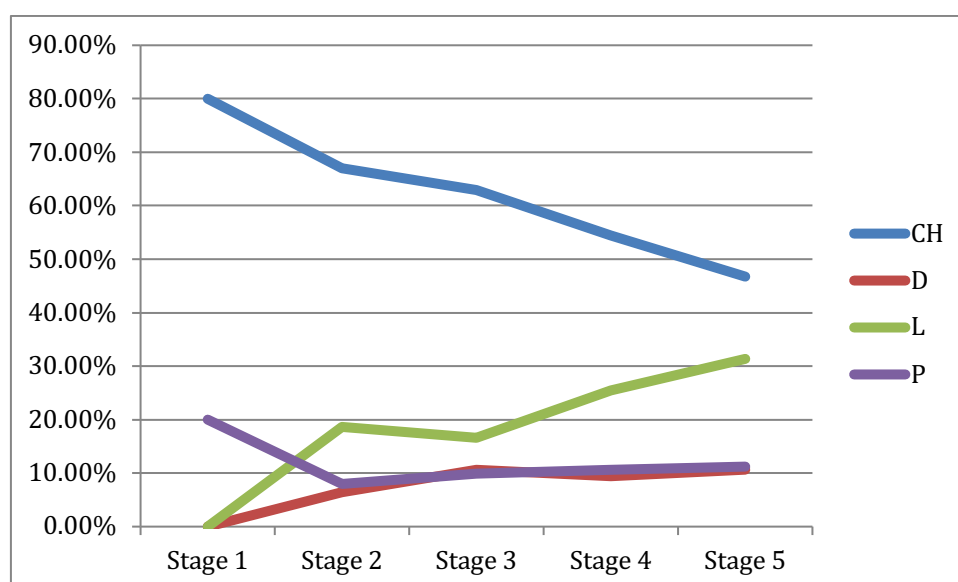
Table 45 - Main points for Task Management

Stage	Main points
<b>Stage 1</b>	<ul style="list-style-type: none"><li>- Chahel managed the group project from the start, posting which tasks they needed to complete first.</li><li>- Chahel adopted a strategy of disclosure and rapport-related posts when communicating with the others.</li><li>- Chahel led the planning of meetings.</li></ul>
<b>Stage 2</b>	<ul style="list-style-type: none"><li>- Chahel organised the meetings and initiated the discussion of different topics within the meetings.</li><li>- Chahel posted summaries of the meetings on the Facebook Group</li></ul>
<b>Stage 3</b>	<ul style="list-style-type: none"><li>- Chahel set the agenda for the meeting, telling them they had to decide on the final model.</li><li>- Chahel led the discussion on what to do after the decision, before they had decided.</li></ul>
<b>Stage 4</b>	<ul style="list-style-type: none"><li>- Chahel still led the task allocation.</li><li>- Chahel still posted in the same fashion, with a fun greeting and emoticons.</li><li>- Lazar began to organise meetings.</li><li>- Lazar began organising what the group spoke about during the meetings as well.</li></ul>
<b>Stage 5</b>	<ul style="list-style-type: none"><li>- Chahel still took the lead in task allocation online, but now the others began to self-allocate tasks.</li><li>- Chahel and Lazar led the task allocation in the meetings, combining to explain the details and why they wanted to do a task.</li><li>- Devina was ignored in their discussion.</li><li>- Chahel and Lazar discussed their meetings, but the others could not contribute, possibly because they had not thought about it.</li><li>- Chahel, who began the project in the group, was also the one to submit the report.</li></ul>

**Table 46 - Task Management codes across the five stages (N=663)**

Task Management							
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Mean	Mean (Excluding stage 1)
Chahel	4 80.00%	126 67.02%	83 62.88%	92 54.44%	79 46.75%	62.22%	57.77%
Devina	0 0.00%	12 6.38%	14 10.61%	16 9.47%	18 10.65%	7.42%	9.28%
Lazar	0 0.00%	35 18.62%	22 16.67%	43 25.44%	53 31.36%	18.42%	23.02%
Paul	1 20.00%	15 7.98%	13 9.85%	18 10.65%	19 11.24%	11.94%	9.93%
Total	5 100.00%	188 100.00%	132 100.00%	169 100.00%	169 100.00%	100.00%	100.00%

**Figure 15 - Share of Task Management across the Five Stages**



### 5.2.3 Task Discussion

The main area of the discussion during the project was discussion about the tasks. Table 47 shows the main points for task discussion during the project. In Table 48 are the code frequencies for each group member across the stages as it related to the task discussion. Chahel participated the most often in the task discussion, followed by Lazar. Paul followed them with an average of 20% of share of codes relating to task discussion. Devina had the lowest average surface-level participation in the task discussion, with

approximately one instance in ten of task discussion contributions being attributable to her.

**Table 47 - Main points for Task Discussion**

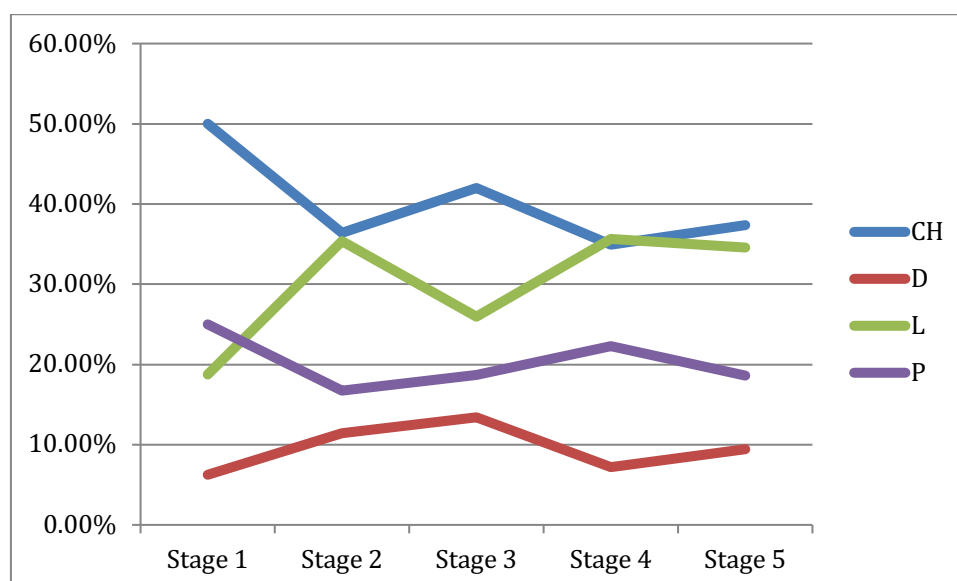
Stage	Main points
<b>Stage 2</b>	<ul style="list-style-type: none"> <li>- Paul disagreed with the group during the discussion, but he did not try to persuade the others, preferring to go with the consensus (see section 5.3.1).</li> <li>- Chahel felt that Paul should have supported his own opinions more.</li> </ul>
<b>Stage 3</b>	<ul style="list-style-type: none"> <li>- Towards the end of meeting 5, Chahel proposed not deciding, but then Lazar insisted that they decide.</li> <li>- Lazar felt they were spending too long on the project but did not tell the others.</li> <li>- Devina misunderstood what was required of her during this meeting, despite seeming to understand what they had been talking about before (see section 5.3.2).</li> </ul>
<b>Stage 4</b>	<ul style="list-style-type: none"> <li>- Lazar took the lead in the task discussion (see section 5.3.4.)</li> <li>- There was a misunderstanding online between Chahel and Paul, but they decided to discuss it face-to-face</li> <li>- Devina did not contribute much to the task discussion in this stage.</li> <li>- In contrast, Paul's contribution was recognised as they had a discussion involving his work on outliers.</li> </ul>
<b>Stage 5</b>	<ul style="list-style-type: none"> <li>- Most of the task discussion during this meeting was about proofreading the report.</li> <li>- The students also discussed their roles, but in a perfunctory manner, and during their interviews they did not reflect upon this much more deeply.</li> </ul>

**Table 48 - Task Discussion among the group members (N=2,437)**

Task Discussion							Mean (Excluding stage 1)
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Mean	
Chahel	8 50.00%	172 36.44%	144 41.98%	146 34.93%	444 37.37%	40.15%	37.68%
Devina	1 6.25%	54 11.44%	46 13.41%	30 7.18%	112 9.43%	9.54%	10.36%
Lazar	3 18.75%	167 35.38%	89 25.95%	149 35.65%	411 34.60%	30.06%	32.89%
Paul	4 25.00%	79 16.74%	64 18.66%	93 22.25%	221 18.60%	20.25%	19.06%
Total	16 100.00%	472 100.00%	343 100.00%	418 100.00%	1188 100.00%	100.00%	100.00%

Figure 16 shows Paul and Devina's surface-level participation in the task discussion did not fluctuate greatly from stage to stage. Similarly, after Stage 1 Chahel and Lazar's surface-level participation in the task discussion did not deviate too much either, with the exception of Stage 3. The individual group members' contributions to the task discussions were related to their competence in the project task, and also their ability to articulate effectively their thoughts about the project (see sections 5.3.1 and 5.3.2). Devina had problems with her English language ability, and with the demands of the task, and this was reflected in her low surface-level participation in the task discussion. Paul, who was from a slightly different disciplinary background, also struggled to get to grips with the unfamiliar requirements of the project, and also to explain his ideas to the other members of the group. These specific competencies will be discussed further in the learning incidents below; however, these codes provide an overview of the involvement of the different group members, from which there are clear indications that the uneven surface-level participation in the task discussion needed to be investigated.

**Figure 16 - Share of Task discussion across the five stages**



#### 5.2.4 Rapport-related Communication

Table 49 shows the main events that took place during the project which were related to rapport. Overall there were fewer instances of rapport-related communication compared to task discussion and task management. However, it was still important in

the team to maintain a good rapport as they worked. Table 50 shows the instances of rapport-related communication amongst the team members. In Figure 16 shows that the use of rapport-related communication amongst the group members fluctuated a lot throughout the different stages, with only Devina maintaining a similar level of rapport-related instances throughout the project. Chahel and Lazar had the highest levels of rapport-related communication, with Lazar often using humour, and Chahel often using praise and compliments. There were very few instances during the project where the group lacked rapport building, and maintaining rapport was not a struggle for the group, as they seemed to maintain a good working relationship without evident effort (although Chahel commented in the interview that he did in fact consciously try to maintain rapport when posting online).<sup>120</sup>

**Table 49 - Main Points for Rapport-related Communication**

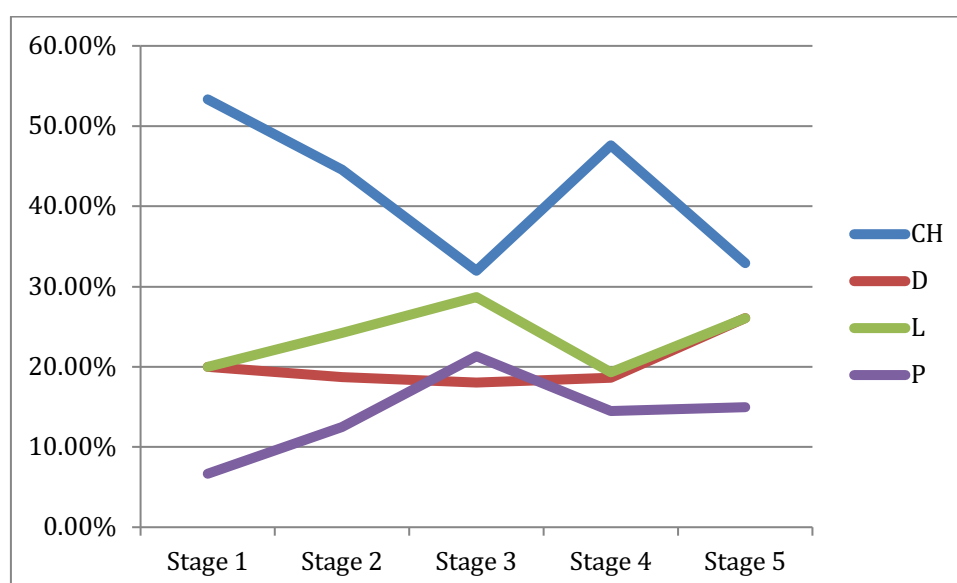
<b>Stage</b>	<b>Main points</b>
<b>Stage 1</b>	<ul style="list-style-type: none"> <li>- Chahel used rapport-related communication in his posts (fun greetings and emoticons)</li> <li>- There was some ambiguity in the rapport-related communication of the others.</li> </ul>
<b>Stage 2</b>	<ul style="list-style-type: none"> <li>- All humour was related to the project and was led by Lazar.</li> <li>- Online the group also used emoticons and <i>likes</i> to express sentiments.</li> </ul>
<b>Stage 3</b>	<ul style="list-style-type: none"> <li>- Many instances of humour and praise during this stage.</li> <li>- All the humour was related to the discussion of the project.</li> <li>- Chahel gave praise the most often.</li> <li>- The group members began to talk about other groups, and their work.</li> </ul>
<b>Stage 4</b>	<ul style="list-style-type: none"> <li>- Lazar continued to use humour that was related to the task.</li> <li>- Devina had a proportionately high number of rapport instances, but she did not have a wide range of rapport-related communication strategies.</li> </ul>
<b>Stage 5</b>	<ul style="list-style-type: none"> <li>- Lazar had the most instances of humour, but Chahel had the highest number of instances of rapport overall.</li> </ul>

<sup>120</sup> Chahel Interview, 39:47 – 40:01

**Table 50 - Instances of Rapport-related Communication among the group members (N=620)**

Rapport-related Communication							Mean (Excluding stage 1)
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Mean	
<b>Chahel</b>	8 53.33%	57 44.53%	39 31.97%	69 47.59%	109 51.90%	45.86%	44.00%
<b>Devina</b>	3 20.00%	24 18.75%	22 18.03%	27 18.62%	62 29.52%	20.99%	21.23%
<b>Lazar</b>	3 20.00%	31 24.22%	35 28.69%	28 19.31%	78 37.14%	25.87%	27.34%
<b>Paul</b>	1 6.67%	16 12.50%	26 21.31%	21 14.48%	44 20.95%	15.18%	17.31%
<b>Total</b>	15 100.00%	128 100.00%	122 100.00%	145 100.00%	210 100.00%	100.00%	100.00%

**Figure 17 - Share of Rapport across the five stages**



### 5.2.5 Uncertainty

Uncertainty among the group members towards the project was the most evenly shared of the themes from the inductive analysis. This uncertainty was either explicit, where they would say what they were unsure about, or it was implicit, where the students would ask clarifying questions or check information. The main events during the project related to uncertainty are in Table 51. On average (see Table 52 and Figure 18), Devina exhibited the fewest instances of uncertainty throughout the project, even though there



were instances when she did not always understand what they were doing (see Incident Two, section 5.3.2). In contrast, Chahel and Lazar, who were the most academically able and most involved in the project, had the highest average instances of uncertainty. In this group the most able group members were comfortable with expressing when they were unsure about the work. Whereas the reticence to admit uncertainty by Devina (and also Paul) could be linked to their lesser understanding of the project. They were also not as involved in the task discussion and task management. and seemed less sure of the overall project. It may be that they were trying to grasp aspects of the work privately before asking questions about the details. This seems to have been the case for Devina, as will be seen in section 5.3.2.

**Table 51 - Main Points for Uncertainty**

<b>Stage</b>	<b>Main points</b>
<b>Stage 2</b>	<ul style="list-style-type: none"> <li>- Paul was uncertain about his own ability, but it also encouraged others to help him.</li> <li>- Lazar, the most academically able, also voiced his uncertainty in meetings.</li> <li>- Chahel and Lazar used lots of information checks and clarifications to become more certain about their work in the project.</li> </ul>
<b>Stage 3</b>	<ul style="list-style-type: none"> <li>- The group were very uncertain about the model development during this stage.</li> <li>- Paul tried to talk about an important test for the model, but could only explain in vague terms, so had to rely on Lazar to explain instead.</li> <li>- Lazar seemed to understand why Paul was having trouble explaining his opinions.</li> </ul>
<b>Stage 4</b>	<ul style="list-style-type: none"> <li>- The two most involved members also had the highest levels of uncertainty.</li> <li>- Chahel and Lazar were able to correctly interpret what the other was thinking about outliers, but they had to confirm it using checks and clarifications.</li> </ul>
<b>Stage 5</b>	<ul style="list-style-type: none"> <li>- There were high levels of uncertainty, but more so from Chahel and Lazar, who were also most involved in the project.</li> <li>- Lazar had the highest level of explicit uncertainty, whereas Devina had the lowest level. This reflected their comfort with the project, and willingness to admit uncertainty.</li> </ul>

Table 52 - Uncertainty between the group members in the project (N=590)

Uncertainty							Mean (Excluding stage 1)
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Mean	
<b>Chahel</b>	0 0.00%	32 36.36%	55 36.67%	23 36.51%	111 38.54%	29.62%	37.02%
<b>Devina</b>	0 0.00%	12 13.64%	39 26.00%	7 11.11%	38 13.19%	12.79%	15.99%
<b>Lazar</b>	0 0.00%	25 28.41%	36 24.00%	21 33.33%	96 33.33%	23.82%	29.77%
<b>Paul</b>	1 100.00%	19 21.59%	20 13.33%	12 19.05%	43 14.93%	33.78%	17.23%
<b>Total</b>	1 100.00%	88 100.00%	150 100.00%	63 100.00%	288 100.00%	100.00%	100.00%

Figure 18 - Percentage Expression of Uncertainty across Five Stages

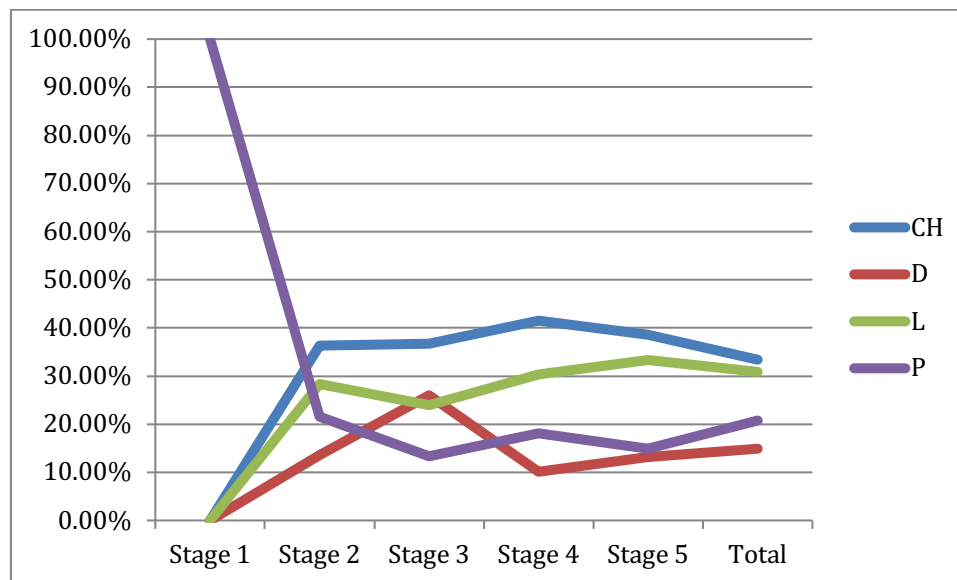


Table 53 below shows the instances of clarification checks between the different group members. Clarification checks were a sub code of Uncertainty and show how often the group members checked each other's mean across the different stages. This shows that Chahel and Lazar, the most able students who participated the most in discussions, clarified what the others were saying the most often. In contrast Devina, and especially Paul, used relatively few clarification checks. When Devina would clarify what they were discussing, she would often wait until the end of the meeting, and then address her

questions to Chahel,<sup>121</sup> whereas Paul clarified meaning in the same manner as Chahel and Paul, but less frequently.

**Table 53 - Coded Instances of Clarification Checks (N=348)**

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Total
<b>Chahel</b>	0	30	30	11	51	128
<b>Devina</b>	0	11	11	7	29	81
<b>Lazar</b>	0	22	22	9	34	95
<b>Paul</b>	1	13	13	6	15	44
<b>Total</b>	1	76	76	33	129	348

### 5.2.6 Overall Thematic Codes for the Whole Project

Table 54 shows the overall code instances for each group member throughout the project. It shows the overall involvement of the group members in different aspects of their project. Chahel was the most involved in all of the aspects of the discussion, followed by Lazar. Then there is a gap of more than ten per cent to get to Paul's level of involvement. Devina has the lowest level of involvement throughout, and in almost of the categories except for rapport-related communication.

**Table 54 - Code Frequency Totals throughout the project (N=4397)**

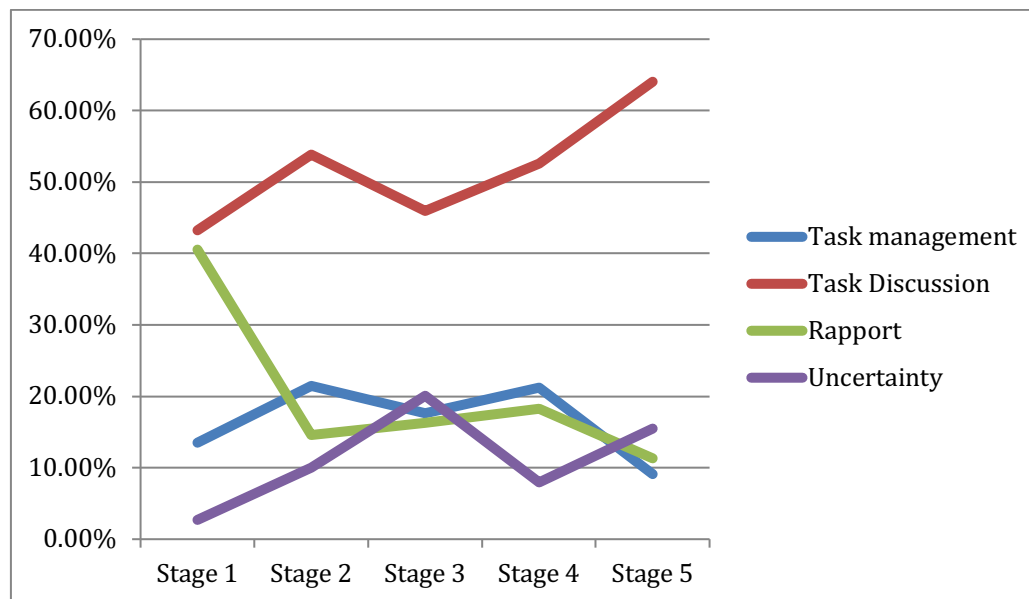
	Task Management	Task Discussion	Rapport	Uncertainty	Total	Percentage
<b>Chahel</b>	384 57.92%	914 37.51%	250 38.82%	218 33.38%	1766	40.16%
<b>Devina</b>	60 9.05%	243 9.97%	137 21.27%	97 14.85%	537	12.21%
<b>Lazar</b>	153 23.08%	819 33.61%	158 24.53%	202 30.93%	1332	30.29%
<b>Paul</b>	66 9.95%	461 18.92%	99 15.37%	136 20.83%	762	17.33%
<b>Total</b>	663 100.00%	2437 100.00%	644 100.00%	653 100.00%	4397	100.00%

Figure 19 shows the instances of the different codes compared to each other across the stages of the project. From the figure it is clear that the main area of discussion during the project was discussion about the tasks. Then rapport-related communication and task management were fairly evenly matched after Stage 1 of the project, and both

<sup>121</sup> M4 & M5 Field notes

declined in the final stage of the project, as the students focussed more on completing their work. Uncertainty among the group members fluctuated throughout the project, although it peaked in the third stage, when they were trying to decide on the final model. The importance of this figure is that it shows what the discussion during the project was most centred around.

**Figure 19 - Percentage Codes across the five stages**



#### **5.2.6.1 Significance of the inductive coding**

Before moving onto the learning incidents below, it is important to consider what the inductive coding convey about the students' contributions in the different aspects of the project. The first is that Devina had a low surface level of participation throughout, which suggests that she faced possibly more obstacles in order be involved in the group discussions compared to the others. In contrast Lazar and Chahel both had high levels of involvement in all aspects of the project, but the other students did not perceive them to be explicitly dominating of the discussion,<sup>122 & 123</sup> although Devina did at times feel excluded from the group decisions (see Incident Two, 5.3.2) Paul was somewhere in between, involved but not centrally involved, his challenges were more subtle than Devina's, but he did not possess the same level familiarity with working with statistical data as Lazar and Chahel.

<sup>122</sup> Paul Interview, did not reveal any challenges with making himself heard in discussions

<sup>123</sup> Devina Interview, 15:59 – 16:04

### **5.3 Results of the Deductive Analysis of the Critical Incidents with the Stimulated Reflection Interviews**

This part of the chapter analyses deductively the critical incidents that were shown to the students during the interviews. The analysis draws from the GPCF and Taylor's theory of IC development. There were five incidents that the students were asked about, although, as with the first group, some of the students were more involved in some incidents than others, and some of the incidents only involved one student directly. There were more incidents during this group's project than in the previous group analysed, but none of these incidents were as prolonged as the second incident in Case Study One, with such deep involvement of some of the team members. Instead, in this group there was a series of less prolonged incidents that nonetheless challenged the students during the course of the project. At the end of each incident a table summarises the competencies developed. These tables detail the involvement of the students in the different incidents, their reflection, and the overall evidence of learning from these incidents. In these tables, the third, fourth and fifth columns represent stages two, three and four in Taylor's model for the development of intercultural competence.

#### **5.3.1 First Incident**

This incident took place early on in the group's project, at the end of the first meeting where there was full attendance (meeting 2). The students were deciding on an initial model. Chahel had asked them about their opinions on the different variables that would feed into the model and they were discussing which variable to remove, either donation or generosity.<sup>124</sup> Paul was in the minority opinion because he wanted to remove generosity, whereas the others wanted to remove donation. However, when it came to the final decision, Paul yielded to the prevailing will of the other group members.

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<sup>124</sup> Donation was the amount of money that the people of a nation donated to charity, whereas generosity was donation adjusted as the amount donated relative to income (and then averaged out within a nation to give it an overall score).

**Transcript 4 – Meeting 4, 00:18:26 - 00:18:50**

1	CH	This was a massive thing, so half of us was donation and half of us
2		was generosity. So let's decide now. Who was for donation?
3	L	I vote for donation
4	D	Donation
5	CH	And Pete? [laughs]
6	P	I was for generosity but whatever. It's not like a huge thing.
7	L	Okay, and one fundamental question. In the initial model and the full
8		model are we expected to use the same variables?

Transcript 4 shows the short exchange between the group members during this incident, when they were coming to this decision. Paul was the only group member who had a different opinion on which variable to exclude. In the interview, upon seeing this clip, he commented that it was best for the group to reach a consensus on their decisions, and that he ceded in this instance in order to help them progress.<sup>125</sup> However, it did not appear this way to Chahel. He wanted Paul to defend his positions more often in their discussions:

*I tried to like give him- because he's from a math background he didn't think he had a valid reasoning for his arguments. I think he had a valid reason, but he just didn't push for it I guess"<sup>126</sup>*

So instead of Paul's action being interpreted as something done for the benefit of the team, Chahel understood the situation as Paul doubting his own ability, due to being from a different disciplinary background. For Paul the challenge was for the group to reach a consensus, but for Chahel the challenge was to get the individual group members to share their opinions. During the interview neither student raised the possibility that there was a different interpretation for their actions or gave evidence of self-awareness that their actions in this incident could be interpreted differently.

### **5.3.1.1 Learning and reflections on first incident**

From this incident there were three competencies that were on display from Paul and Chahel. The first was goal orientation. Paul was trying to sublimate his own objections

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<sup>125</sup> Paul Interview, 0:05:38 – 0:05:50

<sup>126</sup> Chahel Interview, 0:04:41 – 0:05:01

in order for the group to reach the overall goal faster of a final model. Paul tried to minimise his own objections for the benefit of the group. In contrast, Chahel wanted to surface the different views (see section 5.2.2) and then “battle it out,”<sup>127</sup> so that the group could reach an optimum shared solution. Building shared knowledge and mutual trust was the competence Chahel was trying to use here. However, neither student displayed another important competence during this incident (although they did in subsequent incidents) – self-awareness. Paul and Chahel were not aware of how the other perceived their own behaviour. Both were pursuing goals that they thought would be beneficial to the group, but neither knew that this was each other’s aim, or even that their aims were different. Both displayed evidence of the same competence (although manifested differently) but received no encouragement to develop it. This was because their methods were working against each other (one encouraging opinions, the other subordinating their own for the sake of the group). The other important aspect of this is that their goal orientations were dissimilar. Although they both wanted to do well in the project, they had different views on how to go about this in their interactions and decision-making. Reaching a consensus is not the same as reaching the best decision. They actually had subtly different goals.

The consequence of this was that it contributed to Chahel feeling frustrated (although not openly) with the lack of contribution from other group members,<sup>128</sup> not realising that (in the case of Paul) they might not have been contributing because they did not want to upset the consensus. Also, Paul contributed his thoughts less than he would have because he felt consensus was more important than outlining his differences. However, that led to Chahel attributing it to disciplinary differences (which is partially true, see section 5.3.3), rather than considering that Paul could just be refraining from speaking for other reasons.

### **5.3.1.2 Conclusions from first incident**

Table 55 summarises the main competencies from this incident. This shows that the levels of reflection of the two students and whether there was evidence of learning. Behind this incident a few issues emerged with respect to intercultural competence. The

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<sup>127</sup> M2, 00:42:29 – 00:44:43

<sup>128</sup> Chahel Interview, 10:23 – 10:48

two members were both attempting to engage with reaching a decision. In this instance, however, neither was aware that the other had a different view of how to reach the decision. Neither student was aware of what the other was doing, although Chahel was trying to understand Paul's thought processes.

**Table 55 - Incident One - Competencies Developed**

Person	Involvement in Incident & evidence of dissonance causing stress	Intercultural Competencies	Cognitive Orientation (Reflective/Non-reflective) & Report	Evidence of Learning?
<b>Chahel</b>	Remembered incident in terms of trying to reach a decision.	Building shared knowledge and mutual trust	Non-reflective - Was trying to encourage the other group members to discuss	Realised struggles of getting students to contribute
		Goal Orientation	Non-reflective - Wanted to get the best idea.	None
		Self-awareness	Reflective - Thought Paul had a valid reason, but that he was unsure of himself	Considered other's motivations for actions
<b>Paul</b>	Did not perceive the incident to be significant.	Goal Orientation	Non-reflective - Was trying to reach a group consensus	None
		Self-awareness	Non-reflective - None	None – Unaware of how he appeared to the others.

### 5.3.2 Second Incident

This incident spans across two meetings. The first part was towards the end of their fourth meeting, when the group agreed to try to present a model at the next meeting that only had transformations that could be justified, either through logical or scientific reasoning. Devina was present at this meeting and at the time nodded in agreement. Then for the second part, at the beginning of the next (i.e. fifth) meeting, she shared a



model with the other group members that had many transformations that she could not justify to the others. At the end of the discussion her work was disregarded, and they focussed on the contributions of the others.

In the group's fourth meeting they discussed doing transformations and agreed that they needed to be justified (see Transcript 5). Devina was present for this conversation and she joined in the laughter at the impossibly perfect line in Lazar's graph, which signalled to the others that she had understood what they were joking about.

**Transcript 5 – Meeting 4 - 48:02 to 48:21**

L	I should have asked the lecturer today if we're really fighting for a perfect straight line.
CH	No. No, I don't think it should be a perfectly straight line. I think all of our reasons for doing a transformation should be justified.
L	Yeah.
P	Yeah.
CH	Not just to get [points at L's perfect line in his graph]
All	Laughter
L	Yeah, I think this is really bad.

In their next meeting the group discussed the issue of justifying their transformations once again. However, when Devina presented her work to the others (Transcript 6) she had used multiple transformations that she could not justify.

**Transcript 6 – Meeting 5 19:10 - 21:39**

1	D	I do both together, like spare-root ladder and then log GDP plus log GDP squared plus life expectancy plus life expectancy squared (laughs).
2		
3		Sorry to [inaudible]
4	L	Okay, so what's the explanation for log GDP?
5	D	Because Log GDP, like we have the text. I've got a text, like did we try this? The power transformations to multi-normality? Something like that? The power transformations, so it's kind of like if we do...here... do you know what I mean? Is it suggesting we do the transformation to each bit?
6		
7		
8		
9		
10	L	[moves over to look at D's laptop and reads]
11	D	So according to this I try to change something and like for Log GDP and then it said two so I guess I need to square it and I do again
12		
13	L	And this lambda is this a range of values which is suggested or what?
14		What is the meaning of those zero point five five four?
15	D	I think it's the power we need to take.
16	L	For each of the variables?
17	D	Yeah, that's the main power.
18	L	Okay.

19	D	But it's quite weird if you transform everything.
20	L	There's no way you can explain that.
21	CH	Yeah.
22	L	Okay.
23	P	Maybe if you transform one...

When Devina began to talk about the work she had done, she seemed aware at this point that she had done too many transformations as she laughed at her own long list of them (line 2). She was then asked how she would justify them but was uncertain about her the justifications (line 5-9). She eventually conceded that transforming everything was “quite weird” (line 19) after the others had told her that she could not justify so many transformations. In the previous meeting they had discussed this, but Devina had not fully understood. This is clear from what she presented to them in their fifth meeting; a model with a lot of transformations that she could not justify.

#### **5.3.2.1 Learning and reflections on second incident**

The core competences at issue here for Devina were language proficiency and active listening. These competencies also had an impact on her ability to achieve mutual understanding, as well as her surface-level of participation (see section 5.2.1). In her interview she admitted that she had some issues with being able to listen and contribute at the same time.<sup>129</sup> However, it is clear from the example above that her conceptual comprehension of what was being said was also an issue. Devina explained that her lack of comprehension was at times due to her unfamiliarity with the computer software that they were using for the project.<sup>130</sup> However, her language abilities were commented on by other group members (Lazar questioned why such poor English language ability was permitted at the university, however, Chahel thought her English was “quite good”).<sup>131132</sup> During the meetings Devina was not able to participate fully in the group's humour. She did not always laugh when a joke was shared or would laugh only after everyone else had begun laughing. Although she did not always understand what was being said, she did not attempt to improve her understanding through asking more questions to clarify meaning (although she did ask more clarifying questions overall

<sup>129</sup> Devina Interview, 0:01:30 – 0:01:38

<sup>130</sup> Devina Interview, 0:07:14 – 0:07:24 & 0:17:40 – 0:17:50

<sup>131</sup> Lazar Interview, 0:21:38 – 0:22:26

<sup>132</sup> Chahel Interview, 32:43 – 32:46

than Paul, see Table 53). Devina commented on what she would do when she did not understand the group conversation:

*Sometimes when they say something I can only listen. I can't really give like some useful comments on it, and I will try to understand what they discover and do further work on it. That's why I'm quite silent in the group.*<sup>133</sup>

Her strategy to understand what was being discussed was to stay silent and try to understand what they were talking about. However, due to the ambiguity of silence it is not possible to say when she was being silent, and she did not understand, and when she was being silent and did understand – except on occasions where she produced work that was not to the same standard or same criteria agreed by the other students in the group.

It is difficult to say if she did not understand because of a language problem (i.e. not catching the full substance of the conversation in the previous meeting) and/or because of a lack of statistical knowledge (i.e. not understanding what it means to justify a reason for a transformation). Both are possible, and it is also possible that they worked in tandem, however, what is clear is that she did not fully understand the work that needed to be done but did not make efforts to check if she had fully understood before undertaking the work. Indeed, her lack of understanding only became evident when she presented her work.

At this stage in the project the other group members were able to view her work and correct it for her, so the group strategy of presenting work corrected her misunderstandings. However, she was unable to effectively pre-empt this earlier in the process through checking what was required or if she understood. The correcting of her work contributed to the negative perception that Devina held of how the others viewed her contributions. In the interview Devina commented that she felt the others rejected her ideas,<sup>134</sup> but that she still felt she had a chance to put them forward.<sup>135</sup> However, it is understandable that the group would reject her ideas if she presented something based on a misunderstanding of what was required. So, whilst she acknowledged that

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<sup>133</sup> Devina Interview, 0:01:30 – 0:01:38

<sup>134</sup> Devina Interview, 0:15:46 – 0:15:55

<sup>135</sup> Devina Interview, 0:16:15 – 0:16:19

her language proficiency and knowledge of the subject could have an impact on their evaluations of her work and ideas, she also transferred the responsibility onto the other group members. To an extent this is fair, in that the other students could have made language adjustments to help her to understand the discussions better. However, the other group members did not seem fully aware of her level of misunderstanding (possibly due to her level of silence in the meetings), and also were unaware of the consequences of rejecting her ideas, which contributed to her feeling divorced from the decision-making.

#### **5.3.2.2 *Conclusions from second incident***

This incident involving Devina is more complex than it initially seems. The most obvious solution would be for Devina to improve her English language ability, active listening and her understanding of the subject. However, neither of these could have occurred within the timeframe of the project in order for significant improvements to be evident. So instead of targeting these competencies, Devina could have engaged in asking more clarifying questions, indicating uncertainty, and signalling more clearly when she did or did not understand. However, she did not seem to realise this, and the consequence was that the other students did not accept her ideas, and she felt divorced from the decision-making process, which could have had a negative impact on her motivation to try to improve and involve herself more (see Table 56 for summary of competencies developed).

Table 56 - Incident Two - Competencies Developed

Person	Involvement in Incident & evidence of dissonance causing stress	Intercultural Competencies	Cognitive Orientation (Reflective/Non-reflective) & Report	Evidence of Learning?
Devina	She remembered the incident but was unclear in expressing her thoughts about it. <sup>136</sup>	Language proficiency	Non-reflective - None	None
		Active Listening	Non-reflective - Strategy was to just listen until she understood	None
		Building Shared Knowledge and Mutual Trust	Non-reflective - Understood that subject knowledge affected her contribution	None

### 5.3.3 Third Incident

This incident took place during meeting four. In it, Paul tried to explain a function in the software they were using, and its implications for the model development. However, Paul's explanation was not sufficient for the others to understand the significance of the function. Then, Lazar looked up the function and explained its importance to the others. This incident concerns quite a short episode in the group's project, but it was indicative of a larger challenge that Paul faced in being able to articulate his thoughts so that the others could understand him.

Transcript 7 - Meeting 5, 00:25:12 - 00:26:29

1	P	Do any of you know what the kappa function does in R?
2	L	Nope
3	P	Because I was looking at it. I'm not one hundred per cent sure. I was
4		basically looking at some stuff online, and it said if you have a very
5		high kappa value in your linear model, it suggests there's like multi-
6		collinearity and stuff. And if I understood what that was saying right
7		then it was saying we should like log GDP or something. But,
8		[laughter] if I misunderstood what the whole kappa thing was then
9		we will just go with Lazar's model. Because I thought it was a bit
10		weird because the VIF wasn't particularly high for any of them.
11	CH	After we made those transformations?
12	P	Yeah or even before they weren't huge.
13	CH	No they weren't, they were around three weren't they?

<sup>136</sup> Devina's interview was difficult due to her occasional lack of understanding of the questions posed to her. She also did not provide extended responses to questions when she understood them.

14	L	This kappa thing is quite important. It uses QR in composition, like for
15		the main [inaudible] and it's the product of the norm of the matrix
16		and the norm of its inverse. Erm, I don't know how to interpret it.
17		[Chahel looks up Kappa function with Devina]

Transcript 7 gives the account of the incident. Paul expressed uncertainty about his understanding of a function of the software they were using. In this instance Paul introduced his uncertainty about the kappa function, but in vague terms (e.g. “like multi-collinearity and stuff” and “we should log GDP or something like that”). Then, as he was talking, Lazar looked up the function, and once Paul had finished talking he then explained it more accurately to the others. From Lazar’s explanation the other students were then able to relate it to the variable transformations that they had made to their model.<sup>137</sup>

#### **5.3.3.1 Learning and reflections on third incident**

There are two competencies relevant to this exchange between Paul and Lazar. The first is on the part of Paul: stylistic flexibility – the ability to change language to suit a purpose. For Lazar, the competence that he demonstrated was active listening, and also stylistic flexibility. Paul was unable to adequately adapt his speaking style when describing the function so that the others would understand. This was partly explained by the contextual factor that Paul did not bring his laptop to the meetings, so he could not look up what he was trying to explain. However, it is more pertinent to this incident that Paul’s background discipline was not statistics (it was pure maths), so he was unfamiliar with the specific statistical vocabulary that would explain what he had read about. Another factor in this incident was Paul’s own uncertainty about what he had read. In his interview, Paul commented that he was not sure what he had done, but he wanted to “flag up the issues”<sup>138</sup> for the others. This was useful in that it made the group aware of the function; however, Paul’s attempt to explain the function to the others did not help them to understand its importance. Instead, Lazar explained it for him, and was able to judge if it was important. This was not the only occasion where Paul’s explanations were unclear, and the others had to try to clarify what he was talking about. In his interview,

<sup>137</sup> Meeting 5, 00:26:29 – 00:28:02

<sup>138</sup> Paul Interview, 0:19:03 – 0:19:37

Paul was not aware that his explanations were not clear, although Lazar was. He commented that there was a difference in their academic backgrounds, and that:

*I think he's, I don't know, probably shy to explain this, or to explain what he means or something like, or he just feels there is no need for him to explain so much, so we are sometimes, for example, Chahel or me, I think you might have noticed that we have asked like 'Paul, can you explain once again?' and it turns out that his idea is right, but it's just that if he writes only one sentence explaining the idea, whereas he could have said three sentences. It makes a difference.<sup>139</sup>*

Lazar felt that Paul did not always explain as well as he could, which caused them to feel that they needed to clarify what he was saying. Lazar was also open to the possibility of different explanations for this, demonstrating flexibility. His views on Paul link with Chahel's frustrations, mentioned in Incident One (section 5.3.1), when Paul did not support his assertions, when he felt that he should have.

A separate issue from this incident is that Lazar's facilitation of the explanation of the function made it less of a challenge for Paul. This meant that instead of Paul being challenged to explain himself more clearly, from which he could have learnt more about how to explain, Lazar took over the challenge. So, what could have been a learning incident for Paul actually became a practice session for Lazar, who already had the ability to change his style of speaking between maths and statistics students from previous experience.<sup>140</sup>

### **5.3.3.2 Conclusions from third incident**

The competencies relevant to this incident are summarised in Table 57. This incident showed two of the students in the group had very different levels of familiarity with the subject, and this had an impact on their stylistic flexibility in adjusting their language for the others to understand. Paul was unable to explain his ideas clearly, and so was reliant upon Lazar to understand his explanation. Lazar actively listened to what Paul was saying, and then rephrased it for the other group members to understand. This incident could have challenged Paul to think about his language choices, but instead Lazar's intervention suspended this challenge (until Incident Five, section 5.3.5).

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<sup>139</sup> Lazar Interview, 0:32:40 – 0:32:46

<sup>140</sup> Lazar Interview, 31:32 – 32:56

**Table 57 - Incident Three - Competencies Developed**

Person	Involvement in Incident & evidence of dissonance causing stress	Intercultural Competencies	Cognitive Orientation (Reflective/Non-reflective) & Report	Evidence of Learning?
<b>Lazar</b>	He saw Paul's communication problem here as a more general problem.	Stylistic Flexibility	Non-reflective - Had friends who were also maths students, was used to this.	Interview made it seem like he had done this before
		Flexibility	Reflective - Reflected that Paul was similar to other maths students, and needed to be pushed to explain further	Seems he was already used to doing this for others.
<b>Paul</b>	He seemed unaware that he did not express himself well.	Stylistic Flexibility	Non-reflective - Was trying to flag up issues	See section 5.3.5

#### **5.3.4 Fourth Incident**

This incident was the culmination of protracted discussions among the group during meeting five when they were trying to decide on a final model. The group faced two choices for the final model and could not decide between them. Until that point, no one in the group had been willing to come forward and press the group to decide on one model or the other. Then Chahel suggested that the group split up, with two people working on each model, and then deciding at the next meeting.<sup>141</sup> However, after he had suggested this Lazar disagreed, and insisted that they should decide in this meeting. Chahel agreed and then the group decided on a final model. In Transcript 8 Lazar made his preference to make an immediate decision clear and repeated twice that he wanted to decide “now” (lines 1 & 4). Lazar then told them which model he thought they should choose, and the others agreed with him.

<sup>141</sup> Meeting 5, 01:24:50 – 01:25:45



**Transcript 8 – Conversation from Meeting 5, 1:26:01 to 1:26:17**

1	L	I would really rather decide now.
2	CH	Okay, fair play.
3	L	I don't want to say this one but I really want to say this one, but I think it's
4		going to be better if we decide <i>now</i> . <sup>142</sup>

In the interview Lazar commented on this point in the meeting,

*I was already kind of feeling that we have spent too much time doing this project, and I was thinking that we have to make decisions and then finally write it and stuff like that... I think that was what really motivated my proposals for making decisions.*<sup>143</sup>

So, for him, getting onto the other tasks was a pressing concern at this stage. Indeed, during the interview he commented that he was disappointed with the group's lack of progress.<sup>144</sup> However, he did not disclose this disappointment to the other students, but he was firm that they should decide. Lazar described his action as "ask[ing] them if they want to decide now."<sup>145</sup> However, the impression from the transcript above that he did not ask them but stated his view and recommended action.

Lazar's perception of what he said did not match the perceptions of the others. Devina felt that, in a more general sense, this behaviour did not involve her in the decisions. She commented in her interview that, "whatever they decide, and I would just do the work."<sup>146</sup> So she felt that she was positioned outside of the decision-making. However, Chahel was relieved that Lazar made the decision, because Chahel did not want to be the one deciding everything:

*I tried to involve them more, but they didn't seem to want to do that I guess. So then when Lazar said it I was like "someone else has said it, okay let's go on with that one."*<sup>147</sup>

So, there were three different perceptions of this event. Lazar thought that he asked and did not decide, while Devina and Chahel felt that he decided. Devina saw it as a negative, while Chahel saw it as a positive.

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<sup>142</sup> Italicised because there was a change in intonation and emphasis on the word 'now'

<sup>143</sup> Lazar Interview, 0:16:47 – 0:17:35

<sup>144</sup> Lazar Interview, 0:29:40 – 0:30:04

<sup>145</sup> Lazar Interview, 0:09:18 – 0:09:27

<sup>146</sup> Devina Interview, 0:17:13 – 0:17:19

<sup>147</sup> Chahel Interview, 0:10:23 – 0:10:48

For some contextual understanding, it is important to note that the surface participation levels for the task discussion were quite uneven (see section 5.2.3). Lazar and Chahel talked the most about the task, but Paul also contributed a lot. Devina had very few instances of contribution towards the task discussion. This affected Lazar's impression of her, and he commented in the interview that he thought:

*Devina was not putting so much effort in the whole thing... I think she either didn't understand the nature of the task, which wasn't so great, and she didn't really explain what she had found.<sup>148</sup>*

So, for him Devina's lack of contribution was either due to a lack of understanding, or a lack of effort. Devina did mention in the interview that there were aspects of the project she did not fully understand, such as what the "interaction term"<sup>149</sup> did.<sup>150</sup> However, she did not communicate this to the other group members. Devina's lack of surface-level participation was due in part to a lack of understanding (and English language ability, see section 5.3.2). Her low level of surface participation also had the effect of creating a negative perception of her on the part of Lazar. However, when it was pointed out to Lazar during the interview that Devina may have wanted to talk more, he was open to the possibility that how he talked about the project may not have appealed to her:

*It is true yes, because maybe she was feeling a bit frustrated or something like that, having me talking about some stuff, and maybe my language in some situations, I like to explain things in more technical kind of manner, like explain with main decision factors, maybe she doesn't like that sort of explanation.<sup>151</sup>*

So, when asked to reflect on a specific point Lazar showed a self-awareness of this own communication, and how it may have had an effect on Devina. However, during the project itself Lazar did not make any specific language changes in order to make himself better understood by the group members. So, in this case Lazar developed his self-awareness when triggered to reflect and may not have had such reflections otherwise.

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<sup>148</sup> Lazar Interview, 0:18:50 – 0:19:54

<sup>149</sup> A transformation of a statistical variable when dealing with non-linear regressions (i.e. regressions that do not fit on a curve).

<sup>150</sup> Devina Interview, 0:21:56 – 0:22:02

<sup>151</sup> Lazar Interview, 20:53 – 21:39

#### **5.3.4.1 *Learning and reflections on fourth incident***

In this incident Lazar demonstrated a strong goal orientation. He felt that they needed to get the work done and did not want to compromise through delaying the decision on the final model. However, this (and other incidents similar to this) came at the expense of the level of involvement that Devina had with the project. So, whilst focusing on his goal orientation helped the group progress with their project, it meant that he paid less attention to including everyone, and he was unaware of the effect of this until given the opportunity to reflect. Chahel demonstrated sensitivity to how his role could be perceived in the team. He refrained from making the decision because he did not want to be the one making all the decisions. Chahel was not aware that his reluctance frustrated Lazar. However, neither of them was aware of the effect they were having on Devina. Devina did not feel part of the work. Her surface-level participation during this meeting was low (see section 5.2.1), but at the same time she did not make efforts to involve herself as much as the others.

A further competence that the three students were grappling with during this incident was disclosure and concealment. They were concealing from each other their thoughts about the decision-making. Devina did not disclose (or possibly did not know how to disclose) to the other group members that she did not feel involved. Similarly, Lazar did not disclose that he felt they were spending too much time on their decisions, although he did share this with the other students in a subsequent meeting, so it was clear he had reflected on it later. Chahel did not disclose that he felt frustrated in having to make the decisions in the group.<sup>152</sup> Of these three, Lazar was the only person who, in their final meeting, disclosed to the others that he felt that they spent too much time meeting and making decisions on the project. From this he learnt that actually they had spent less time on this compared to other groups. By disclosing his concerns, he was able to learn that his perceptions were not shared, and he could alter his mind-set concerning their progress on the project.<sup>153</sup> However, the other students did not make such disclosures, so they could not learn if the others shared their perceptions of themselves.

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<sup>152</sup> Chahel Interview, 0:10:23 – 0:10:48

<sup>153</sup> Meeting 8, 02:02:46 – 02:02:51

### 5.3.4.2 Conclusions from fourth incident

The competencies in which the group members were challenged by this incident had an impact in subsequent meetings. Lazar took a more organisational role in the group as he tried to get the others to reach the final goal, Chahel took less of a lead in the decision-making, and Devina's surface-level participation in the task discussion declined, and she became more involved in building rapport instead (see Table 50). There was some individual development and learning of the competencies from this incident (see Table 58), which was contingent on their level of reflection, and their actions here influenced their roles towards the end of the project.

Table 58 - Incident Four - Competencies Developed

Person	Involvement in Incident & evidence of dissonance causing stress	Intercultural Competencies	Cognitive Orientation (Reflective/Non-reflective) & Report	Evidence of Learning?
Chahel	Remembered incident clearly and was able to reflect on it.	Disclosure/Non-disclosure	Non-reflective - None	None
		Goal Orientation	Non-reflective - Wanted others to take decisions	None
Devina	Did not remember the incident beyond the factors for the model.	Disclosure/Non-disclosure	Non-reflective - None	None
Lazar	Remembered incident clearly and was able to reflect on it.	Goal Orientation	Non-reflective - Felt that the time pressures required them to decide.	None
		Disclosure/Non-disclosure	Reflective - Felt that the group were taking too long on the project – asked them about it later in project	Disclosed this later on, learnt his perceptions were not shared with others.
		Self-awareness	Reflective - Devina could have felt frustrated by how he explained things in discussions	Development of self-awareness, and how his communication style could affect others.

### 5.3.5 Fifth Incident

This incident took place while the group were revisiting their decision on their final model. After the previous incident the group realised that they needed to change their model once again. During this incident they were discussing how they could adjust it further. It was a discussion about whether or not to remove outlying countries<sup>154</sup> from the model. In earlier meetings Paul had mentioned the outliers, but the question had not been discussed at length. Then at this meeting it came up again and the group had to decide whether they wanted to remove Qatar from the list of countries they were investigating. This time Paul was able to articulate his logic for removing Qatar and the other group members agreed with him, so it was removed from the model.

Early in the project, Paul had discussed the possibility of looking at outliers in their model,<sup>155</sup> but this discussion did not progress beyond listing the outliers. However, as they tried to revise their decision on the final model during this stage, outliers needed to be reconsidered. Chahel brought it up after Paul commented on the influence of Qatar on their model.<sup>156</sup> The group then had a conversation about outliers that lasted fifteen minutes. During this conversation Paul explained his initial work on outliers to the others, and taught Chahel how to test for outliers using their statistical software (see below, Transcript 9). Paul taught Chahel (lines 2 – 8) how to enter in the code for the software, sharing knowledge with the others. He was also able to explain what to do with more certainty than he had when they discussed previous topics (see Transcript 7). As the conversation progressed, it emerged that Paul also had written about the outliers – something that could be included in the report. However, it is worth mentioning at this point, to highlight Lazar's higher academic level, that whilst Paul was explaining to Chahel how to omit outliers, Lazar had grasped the concept, figured the method out and had already run a test on the model with Qatar omitted.

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<sup>154</sup> Outliers were countries that could distort the model such as Luxemburg and Qatar, which both have a very high GDP, but represent a very small proportion of the global population.

<sup>155</sup> Meeting 2, 00:09:32 – 00:10:09

<sup>156</sup> Meeting 6, 00:22:52 – 00:23:06

1	CH	It gives you a long list doesn't it
2	P	Yeah, so then you just do subset of cooks dot distance, you know it's
3		like less than or greater than 0.1 or something. But then it will just like
4		flag up one or two points
5	CH	How does subset work? Sorry
6	P	[moves round to CH's laptop]
7	P	Okay yeah, that's basically right you just have to say what you're doing
8		as subset of first and say what the subset is so
9	CH	Okay cool, nice thank you
10	L	Oh, I did the model without Qatar. Is that what you did just now?
11	CH	Sorry?
12	L	Did you do a model without Qatar?
13	CH	No I haven't done
14	P	No
15	CH	Okay, well this is... [starts conversation about plotting model without
16		Qatar]

After this point Lazar said that they should just decide on any model and write about it, and the others agreed. Lazar felt that they were spending too long on decisions (see Incident Four, section 5.3.4), so it is unsurprising that he suggested this course of action.

#### **5.3.5.1 Learning and reflections on fifth incident**

Paul's stylistic flexibility had improved from earlier in the project, probably due to his increase in familiarity with the subject matter. He was able to explain what he had done, and how Chahel could do the same, with much more clarity than before. This suggests that he had developed from the previous incident. However, the fact that he was not challenged in the previous incident because Lazar explained it for him, suggests that the challenge that helped him develop his ability to articulate how to do a test came from elsewhere, possibly through engaging with the project content. In this sense there was a positive interaction between Paul's competence to explain to others, and in his competence in the project itself. In his interview Paul was not aware of any personal improvement in this competence as the project progressed (or indeed of any other improvements he could make).<sup>157</sup>

<sup>157</sup> Paul Interview, 0:25:17 – 0:25:40

### 5.3.5.2 Conclusions from fifth incident

This incident showed that Paul had developed in his ability to explain the tests to the other group members. Because he was from a different disciplinary culture, he had been unable to explain his work clearly earlier in the project, which was noticed by the other group members in previous incidents. However, during this incident Paul demonstrated some progress (see Table 59). On the other hand, even though he demonstrated it in his actions, he was still unaware of (or at least unable to articulate) what he had learnt, and where he could improve.

Table 59 - Incident Five - Competencies Developed

Person	Involvement in Incident & evidence of dissonance causing stress	Intercultural Competencies	Cognitive Orientation (Reflective/Non-reflective) & Report	Evidence of learning
Paul	Not in the interview	Stylistic Flexibility	Non-reflective – did not discuss this in the interview	Evidence of learning more about the subject specific language from previous incident to this incident.

## 5.4 Chapter Conclusion

This chapter has detailed the results and analysis of the second case study of students working on their project. The inductive analysis provided clear indications of what happened during the project and the different levels of involvement by the different team members during the project. Devina was less involved in the discussions than the other students, and Chahel took up the main managerial role during their project. Then the five learning incidents were considered, including what competencies were used (or not used), and developed by the different students through the challenges they faced. These are listed below:

- Goal orientation
- Language proficiency
- Active listening
- Building shared knowledge and mutual trust

- Disclosure/non-disclosure
- Stylistic flexibility
- Self-awareness
- Flexibility

The level of development for these students was quite low, and they did not engage in much deep reflection. It was evident from the incidents that Devina did not have the language proficiency to be more fully involved (but this was mixed with her ability in the subject), and she also felt that the others did not encourage her involvement. Paul seemed to develop his stylistic flexibility in order to articulate his work to the others, from one incident to the next; however, this was probably not due to his interaction with the others, but through further work on the project materials themselves. Lazar and Chahel both showed instances where they needed to decide to disclose their frustrations with the other group members or not, as well as negotiate their goal orientations with the other group. The development of the competencies, and their usage, will be discussed further in the next chapter.



## 6 Cross-Case Analysis

This chapter will compare the two case studies reported in chapters 4 and 5 for the use and development of different intercultural competencies. These competencies are categorised into four different clusters according to the *Global People Competency Framework* (GPCF). These clusters are *Knowledge and ideas*, *Communication*, *Relationships*, and *Personal qualities and dispositions* (see Figure 6, p57). Each of these clusters will be explained in more detail in their respective sections below. The development of these competencies will also be considered according to the IC development model (Taylor, 1994a), focussing on the *Cultural Disequilibrium* and *Cognitive Orientations* stages (see Figure 7, p62). These two stages have been focussed on because of their immediate relevance to the learning incidents, with the competencies from the GPCF replacing the Behavioural Learning Strategies stage. The first and last stages of the model were less relevant to the analysis and are not discussed here.

In this cross-case analysis the discussion of the competencies will each be structured as follows:

1. Summary of how the competence was displayed in each group and of the learning that took place around the competence
2. Similarities and differences between the two groups over competence use and development
3. Concluding comments for this competence

In some instances, it was difficult to distinguish closely linked competencies. Some of the competencies are interrelated, and some involve similar actions. There will be a section discussing this further at the end of each cluster

Not all of the competencies developed within each case study are necessarily applicable to the other group because either they did not occur in both cases, or, even if the same competence was involved, the experience of this competence was qualitatively different. In these instances, I will explain, where possible, what aspects of the two cases could account for these differences. The competencies, and which participant and incident

they are relevant to, are listed in Table 60 below. From this table it is possible to see to which participants the different competencies were most relevant. It also shows more neatly some of the key differences between the two case studies. For example, in Case Study One Carl and Hitchens had the most competencies that were relevant to them, whereas Nathan and Edward had far fewer. In contrast, in Case Study Two there was a more even spread of the participants over the different competencies. However, their development of these competencies is not clear in this table. The discussion of competency development in this chapter begins in earnest in the section below.

**Table 60 - Competencies relevant to different participants and incidents**

Competence	Case Study One				Case Study Two		
Goal Orientation	Carl, Incident Two		Hitchens, Incident Two		Chahel, Incident One	Paul, Incident One	
Language Proficiency	Nathan, Incident Three				Devina, Incident Two		
Active Listening	Carl, Incident One	Edward, Incident One	Hitchens, Incident One	Nathan, Incident One	Devina, Incident Two		
Building Shared Knowledge and Mutual Trust	Edward, Incidents 1 & 2				Chahel, Incident Four		
Disclosure/Non-disclosure	Carl, Incidents 1 & 2		Hitchens, Incidents 1 & 2		Chahel, Incident Four	Devina, Incident Four	Lazar, Incident Four
Stylistic Flexibility	Carl, Incidents 1 & 2		Hitchens, Incident Two		Paul, Incidents 3 & 5		
Interpersonal Attentiveness	Carl, Incidents 2 & 3		Hitchens, Incident Two		Devina, Incident Two		
Self-Awareness	Carl, Incidents 1, 2 & 3				Chahel, Incident One	Lazar, Incident Four	Paul, Incident One
Flexibility	Carl, Incident Two		Hitchens, Incident Two		N/A		

## 6.1 Overall Picture of Development (based on Taylor, 1994b)

This section will compare the levels of development of ICs for the students from both of the case studies. Table 61 and Table 59 below detail the involvement of the students in the different incidents, their reflection, and the overall evidence of learning from these incidents. In these tables, the third, fourth and fifth columns represent stages two, three

and four in Taylor's model for the development of intercultural competence (see Literature Review chapter, Figure 7).

In the tables below, there is a link between level of involvement and reflective orientation. That is to say that the deeper a participant was involved in an incident, the more likely they were to reflect on their experience. However, this was not always the case, such as for Devina, who was involved in incidents of misunderstandings, but did not reflect on them in the interview. For Devina this could be due to her ability to express herself in English, but also due to if she engaged with the challenges that the incidents presented. In most cases she stayed silent when she did not understand, and so it seems she did not challenge herself to learn or improve in front of the others.

There is not such a strong link in the data between reflecting on the experiences and then learning intercultural competencies. Indeed, Carl, who was one of the more involved and reflective of the participants, seemed to learn very little, with the exception of self-awareness. However, it also seemed possible, in the case of Paul, to not show evidence of reflection but still learn (in the case of stylistic flexibility). Similarly, Hitchens did not provide much evidence of reflection when it came to rapport building, but his instances of rapport-related communication increased after he had an interpersonal disagreement with Carl (Case Study One, Incident Two, section 4.3.2). So, evidence of reflection in the interviews was not mandatory for learning.

For the instances, such as with Carl, where there was reflection but less evidence of learning, this could be explained by the lack of a framework on which he could base his learning on. For example, in Case Study One, Incident One (section 4.3.1) Carl reflected on how he could appear if he disagreed with Hitchens, but he did not know how he could disagree without appearing petty. Carl did not have the repertoire to disagree in a different way at the time, but also in the interview he did not know how he could have disagreed differently either, even though he reflected on it. Part of this could be explained by a lack of facilitation around communication strategies that could have been provided by the students. It can also be explained by the actions of other students that did not make the development of his own competences necessary (see paragraph below). Also, the outcome-orientated nature of the project could have had an impact on Carl's

interest in learning new teamwork skills. During the interview he commented (when comparing this project to assessment centres):

*I sort of know and was aware that I was getting marked on my teamwork [in assessment centres], not necessarily the outcome of the task, whereas this one I was obviously more bothered about the outcome of the task rather than 'do you think I'm a good team player?' And obviously, there was kind of a mix of both as in you had to work well as a team player to complete the task well, but if it meant dismissing that teamwork ethos to just get the job done, then that was probably the path I'd go down in terms of that.<sup>158</sup>*

Because the emphasis was on the outcome of the project, Carl was less concerned about developing his teamwork skills, so in this sense it is also understandable that, in spite of heavy involvement and reflection, his learning of ICs was limited. Incidentally this claim also validates the need to move from assessment of outcome to a focus on process in teamwork projects if students are going to develop their teamwork skills.

The instances where the situation was reversed (less involvement and reflection, but still evidence of learning) are more complex. For these situations there are two illustrative incidents, those of Paul learning stylistic flexibility, and Hitchens learning to build rapport. Hitchens did not reflect on how or why he increased his instances of rapport-related communication after his disagreement with Carl, but it could have been a response to the disagreement, after understanding how Carl felt about how he had acted. So rather than understanding that developing a good rapport was important for the team to work well together, it could have been based on the more immediate challenge of improving his rapport with Carl. By doing this, he demonstrated the ability to build rapport, but without necessarily understanding the value of it. Also, his rapport-building actions meant that Carl did not face a continued challenge of deciding how to disagree with Hitchens without seeming petty (Edwards interventions also made it less necessary), even though Carl still felt it was tense when they did disagree. Paul's improvement in stylistic flexibility was also in response to the challenge of explaining his thoughts and his work to the others. However, he was not very reflective about it

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<sup>158</sup> Carl Interview, 57:15 – 58:41

during the interview. There are a few possible explanations for this. It could be that the close relationship between mathematics and statistics meant that the challenge in changing how he spoke to be understood by statisticians was not as great as it appeared, so it had less of an affective element. Another aspect to the project was that Lazar was able to help Paul communicate his thoughts to the others, and to some extent alleviated his challenge in explaining himself. So, the gap between the two cultures was not that wide, and Paul had help crossing it.

From the two case studies it is therefore possible to see a link, when it comes to development according to Taylor's model, between both participation and reflection, but there is not automatically a link between reflection and the development of competencies. The levels of participation, both surface-level and indicated from their accounts of the incidents, does have a relationship with reflection, and there were only a few incidents where there was development with no evident reflection, however, in those cases the students were still participating in the incidents. It seems from this data that having a framework, either of prior experiences or from elsewhere, can help to guide the learning of intercultural competencies. It is also evident that the assessment of outcome instead of process can have an adverse effect on the development of intercultural competencies, which is important for lecturers to consider when setting assignments (see Discussion and Conclusion chapters for more on this).

**Table 61 - Development from Case Study One**

Person	Incidents involved in	Involvement in incident, and evidence of dissonance causing stress	Cognitive Orientation (Reflective /Non-reflective)	Overall evidence of learning
Carl	1	Very involved, and could remember the incident clearly in the interview and experienced dissonance and indecision	Reflective	Not evident, except for self-awareness.
	2	Deeply involved in the conflict between him and Hitchens during this incident, and evidence of dissonance and stress	Both reflective and Non-reflective	
	3	Very involved, remembered the event clearly, dissonance in uncertainty of how to broach subject	Reflective	
Edward	1	Present at the meeting, but missed the key point in the conversation (no experience of dissonance at time, but did on reflection)	Reflective	Active listening, pre-existing skills
	2	Involved as a mediator trying to resolve the conflict, also messaged Carl and Hitchens privately, but no evidence of dissonance	Non-reflective	
Hitchens	1	Remembered the incident, but for the fact that he disagreed with Carl, not for his role in the exchange (no experience of dissonance)	Reflective	Some for disclosure/n on-disclosure, language choices, and rapport building
	2	Deeply involved in the conflict between him and Carl during this incident, evidence of dissonance and stress	Both reflective and Non-reflective	
Nathan	1	Did not remember the incident, did not initially perceive the clip to be significant (no experience of dissonance)	Non-reflective	Not much evidence, unsure of how to improve
	2	Less involved than the others, only reading the comments (no experience of dissonance).	Non-reflective	
	3	Very involved, remembered the event clearly, but no experience of dissonance	Both reflective and Non-reflective	

**Table 62 - Development from Case Study Two**

Person	Incidents involved in	Involvement in incident, and evidence of dissonance causing stress	Cognitive Orientation (Reflective/Non-reflective)	Overall evidence of learning
Chahel	1	Remembered incident in terms of trying to reach a decision.	Both reflective and Non-reflective	Some for Building shared knowledge and mutual trust, and self-awareness
	4	Remembered incident clearly and was able to reflect on it.	Non-reflective	
Devina	2	She remembered the incident but was unclear in expressing her thoughts about it. <sup>159</sup>	Non-reflective	No evidence of learning
	4	Did not remember the incident beyond the factors for the model.	Non-reflective	
Lazar	3	He saw Paul's communication problem here as a more general problem.	Both reflective and Non-reflective	Some for flexibility, disclosure/non-disclosure, and self-awareness
	4	Remembered incident clearly and was able to reflect on it.	Reflective	
Paul	1	Did not perceive the incident to be significant.	Non-reflective	Some for development of stylistic flexibility
	3	He seemed unaware that he did not express himself well.	Non-reflective	
	5	Not in the interview	Non-reflective	

## 6.2 Competency Cluster One: Knowledge and Ideas

*Knowledge and ideas* is a competency cluster which includes being open to new ideas, taking into account different goals of those you are collaborating with, gathering information about the project and the people your working with, as well as creating solutions to problems that incorporate the conceptual inputs of the different participants (see Table 63). The competence in this cluster that was displayed (and developed) the most from the two cases was *Goal Orientation* (description below) and so the discussion focuses on this competence.

<sup>159</sup> Devina's interview was difficult due to her occasional lack of understanding of the questions posed to her. She also did not provide extended responses to questions when she understood them.

**Table 63 – GPCF Knowledge and Ideas Cluster (Spencer-Oatey & Stadler, 2009, p. 5)**

Information gathering	Proactive in researching the national sectorial contexts, values and behaviours of the people we encounter.
New thinking	Open to new ideas and ready to challenge our assumptions and avoid jumping to quick opinions about the behaviour encountered.
Goal orientation	Be interested in how others' goals for the project may be different to our own, and thus seek to them into account.
Synergistic solutions	Share and surface the different perspectives people have about an issue in order to promote problem solving

### **6.2.1 Goal Orientation**

There were challenges for the students in both groups with regard to *Goal Orientation*, where the students had to balance their own goals against the goals of the group. According to Spencer-Oatey and Stadler (2009), this competence involves finding out the goals of the other participants, maintaining a focus on one's own goals, and the ability to take others' goals into account and balance them with one's own. *Goal Orientation* suggests that the students may have had different goals going into the project. In fact, the overall goal for each student was the same – they had to produce a report and presentation. However, at a more detailed level, their various goal orientations were more complex than the similarities in their overall goals for the project. In Case Study Two, there is evidence that their goals differed in individual discussions (see Case Study Two, Incident One, section 5.3.1). There were also differences among the students in their process orientations, that is to say, the process they thought would be best for them to meet their goals (see Case Study One, Incident Two, section 4.3.2). Whilst this is not specifically a *Goal Orientation*, understanding each other's *Process Orientations* is a related competence, because it incorporates learning and understanding *how* the team members aim to reach their goals.

#### **6.2.1.1 How the competence was displayed, and evidence of learning**

In the second case study, during Incident One, Paul and Chahel had different goals during their discussion. Paul's aim was to reach a consensus on which variable to exclude,<sup>160</sup> whereas Chahel was trying to surface different perspectives before reaching a

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<sup>160</sup> Paul Interview, 0:05:38 – 0:05:50



decision<sup>161</sup> (see also section 6.3.3). Chahel's interpretation of Paul's actions (in which he conceded his opinion in favour of the group majority opinion) was that Paul did not have the subject knowledge to defend his position.<sup>162</sup> This was not an accurate understanding of Paul's intentions. However, Chahel was operating at the initial stage of *Goal Orientation* in trying to consider Paul's perspective. In contrast, Paul did not display awareness of Chahel's goal for the discussion, which was to arrive at the best possible solution for their problem.<sup>163</sup> In the meeting before, Chahel had shared how he wanted the discussion to proceed in order to reach the best model possible (that they would share their ideas and then 'battle it out');<sup>164</sup> however, Paul did not consider Chahel's preferred process orientation in relation to his own behaviour during this subsequent discussion.<sup>165</sup> Unlike Chahel, he did not display an awareness of others' different goal orientations, or any development in understanding around this competence.

In Case Study One, Carl and Hitchens had a prolonged disagreement over the development of their statistical model. They realised through this conflict and reconciliation that they had different procedural orientations towards achieving their common goal.<sup>166</sup> However, they only realised this after they had challenged each other over the course of several days. Carl wanted each group member to do their allocated task, and then share their work with the rest of the group.<sup>167</sup> However, Hitchens wanted the group to collaborate on each aspect of the work together.<sup>168</sup> Both students realised their different procedural orientations in this incident. Their remedy following this incident was not to directly discuss their procedural orientations in subsequent discussions, but instead to clarify and check meaning more frequently, and to use more rapport-related communication (see Case Study One, Incident Two, section 4.3.2).

#### **6.2.1.2 Similarities and differences between these two groups over competence usage**

Both groups encountered issues with their goal orientation, which could be more accurately described as procedural orientation (towards the same goal). In both

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<sup>161</sup> Chahel Interview, 0:04:41 – 0:05:01

<sup>162</sup> Chahel Interview, 0:04:41 – 0:05:01

<sup>163</sup> Case Study Two, M2, 00:42:29 – 00:43:44

<sup>164</sup> *ibid*

<sup>165</sup> *ibid*

<sup>166</sup> Case Study One, M5, 08:39 – 10:28

<sup>167</sup> *ibid*

<sup>168</sup> Case Study One, M5, 10:28 – 10:43

instances the differences in understanding only occurred between two group members. However, the difference between the two incidents is that in Case Study One their differing orientations were vocalised and then, once shared, they were able to change their behaviour to ensure that such misunderstandings were avoided. However, in Case Study Two the different orientations were not vocalised. Paul was unaware that there was a difference, whereas Chahel formed his own interpretation of Paul's reason for not defending his views during the discussion. A final difference is that in Case Study Two the different goal orientations did not occur alongside other conflicting views, whereas in Case Study One the different goal orientations were concurrent with a larger conflict (see Case Study One, Incident Two, section 4.3.2), and so presented a more significant challenge for the students involved.

### **6.2.1.3 Concluding comments on this competence**

One of the two contributions from this data that add to our understanding of Goal Orientation is that a shared understanding of the individual's *process orientation* is just as important as their goal orientation itself. The second contribution is that one's goal orientation may not be pertinent to the entire project, but even to the goal of one conversation or period during a meeting. A final comment on the development of this competence is that the group that had more disagreements around their goal orientations were in the end the ones who were more able to reach a deeper level of mutual understanding over their differences. In Case Study Two the lack of discussion around goal orientation meant that the students had to try to understand each other's behaviour by themselves.

## **6.3 Competency Cluster Two: Communication**

During these two group projects, the intercultural competencies associated with communication were displayed very frequently and showed greater development than competencies from other clusters in the GPCF. The communication cluster concerns competencies around language use and the construction of meaning (see Table 64). The competencies from this cluster that were most relevant to the data were *Active Listening*, *Building Shared Knowledge and Mutual Trust*, and *Stylistic flexibility*. Within the data it became clear that for *Building Shared Knowledge and Mutual Trust* there was a subcategory relevant to this context, *Disclosure/Non-disclosure* (discussed in section

6.3.3.3). From the data it became clear that each of these competencies had links with other competencies, that is to say, one did not occur during the incidents in isolation from the others (discussed further in section 6.3.5).

However, before looking into the different competencies from the GPCF associated with communication, a key competence that emerged from the data was *Language Proficiency* (specifically English Language Proficiency). This can be considered as a prerequisite for other communication competencies in that language proficiency can limit understanding, communicative participation, and the ability to adapt one's language to different contexts.

**Table 64 – GPCF Communication Cluster (Spencer-Oatey & Stadler, 2009, pp. 5–6)**

Communication management	Be attentive to the choice of working language and communication protocols
Language Learning	Willing to learn and use the language of our international partner.
Attuning	Be skilled at observing indirect signals and interpreting them in the context of different cultural contexts.
Language adjustment	Adapt our language to the level of our partner
Active listening	Be active and attentive listeners
Building shared knowledge and mutual trust	Disclose and elicit up-front information that is needed for mutual understanding and meaningful negotiation.
Stylistic flexibility	Influence our partners appropriately and flexibly by drawing from a range of styles to get our message across.

### **6.3.1 Language Proficiency**

*Language proficiency* was particularly relevant to two of the students. Nathan in Case Study One experienced language difficulties (section 4.3.3), and Devina in Case Study Two also did (section 5.3.2). However, each individual's experience of the impact of language proficiency was quite different due to the contextual circumstances of the group, and their differing levels of language proficiency.

#### **6.3.1.1 How the competence was displayed, and evidence of learning**

In the case of Devina, her language proficiency issues were apparent to the others when they discussed how to perform a task. She did not indicate any failure to understand or

any misunderstanding; however, when it came to sharing her work, she had done exactly what they had discussed not to do, and the others dismissed her work because it did not match the assignment requirements (see Incident Two, Case Study Two, section 5.3.2). Devina's language ability was also compounded by her lower academic ability, which caused an additional barrier to her understanding of the content of the discussions. Her lower language ability was evident to the other students,<sup>169</sup> and had an impact on her surface-level of participation in the group discussions, which was the lowest in the group.<sup>170</sup>

Nathan faced similar language issues to Devina. He also had the lowest surface participation level in his group,<sup>171</sup> and he was offered help with his language level from Carl (see Case Study One, Incident Three, section 4.3.3). However, his language level did not have a noticeable impact on his understanding of the individual tasks in the group project. That is to say, his lower level of English did not seem to have an impact on his performance of different tasks within the group, although it may have had an impact on the level of importance on the tasks he was given (see Case Study One, Table 22).

It would have been difficult for all of the participants to improve their English language abilities significantly within the time span of the project. For Nathan and Devina, their reflections on their experiences were more about other skills they could develop to compensate for their lower levels of English language ability. These included *Active listening* and *Achieving mutual understanding* (see sections 6.3.2 & 6.3.3). There is also the issue of the combination of lower academic ability with language issues, because in their incidents (and particularly Devina's) it is unclear whether the barrier to understanding was subject-related, linguistic, or a combination of the two.

#### **6.3.1.2 Similarities and differences between these two groups over competence usage**

There are similarities between Nathan and Devina in their experiences of their group project, particularly in terms of participation and the link between language ability and

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<sup>169</sup> Lazar Interview, 0:21:38 – 0:22:26

<sup>170</sup> See Case Study Two analysis, Section 5.2.1.

<sup>171</sup> See Case Study One analysis, Section 4.2.1

academic ability. They also had similar approaches when not understanding (wait quietly until they understood).<sup>172</sup> However, how the other group members approached their language difficulties did differ. In Nathan's group, Carl offered direct help (see Case Study One, Incident Three, section 4.3.3), whereas in Devina's group none of the other group members broached the topic with her. Hitchens' experiences of the project were different to both Devina's and Nathan's. He had a higher surface-level of participation and frequency of clarification checks compared to Nathan and Devina.<sup>173</sup> This reflects the fact that he had a higher level of English language fluency than the other two, and his challenges in this competence were quite different. It is possible therefore to consider his linguistic challenges as also issues with *Stylistic Flexibility*, since he admitted that his previous professional experience in the army might have also had an influence on his communication style.<sup>174</sup>

The strategies used by the other group members when confronted with students with language difficulties differed between the groups. In Case Study One, Carl approached Nathan about his language level, and offered to help him. However, when confronted with a suggestion of more subtle language differences, such as with Hitchens, he was dismissive of the possibility (see section 6.3.4.1). So even within one individual, the attitudes towards language proficiency were not consistent, and depended on their perception of the individual's language ability. In Case Study Two, Devina was not offered the same help at any point. Instead the other group members did nothing or, in Lazar's case, privately held an intolerant attitude towards low-level speakers on their course.<sup>175</sup>

### **6.3.1.3 Concluding comments on this competence**

There are two contributions of this competence towards our understanding of intercultural competencies for students working in multicultural student teams. The first, and most important, is that for some students, language proficiency is an obstacle towards learning other intercultural competencies (or more specifically, learning to use

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<sup>172</sup> Devina Interview, 0:01:30 – 0:01:38 & Nathan Interview, 45:45 – 45:51

<sup>173</sup> See Case Study One, section 4.2.5, and Case Study Two, Section 5.2.5

<sup>174</sup> Hitchens Interview, 45:14 – 45:47

<sup>175</sup> Lazar Interview, 0:21:38 – 0:22:26

them in the target language<sup>176</sup>). The second is that having a lower level of language proficiency can limit a student's participation in discussions, and their understanding of the content of the project. In both of the case studies, there were members in each group whose lower English language levels were recognised by their fellow group members. Nathan and Devina struggled with their English. In the first case, Carl offered Nathan help with his English, but overall Nathan's lower English language level did not seem to have a negative impact on the group processes, but it did limit his ability to contribute to the project, so it is difficult to evaluate its impact with any certainty. In contrast Devina's language level had a clear impact on her understanding of what was discussed and caused the others to dismiss her work without realising the cause of her misunderstanding. Alongside Devina's language level, her ability to understand and participate in the group discussions was also exacerbated by her lower academic ability. For both of these students their language abilities were linked with other communicative competencies, including *Active listening* and *Building Shared Knowledge and Mutual Trust* (see sections 6.3.2 & 6.3.3). Using both of these competencies would have aided them in understanding more of the project, yet neither used them extensively. Both students had a lower number of instances of clarification checks in their groups,<sup>177</sup> and their contribution and participation were recognised by their group members as being low.<sup>178</sup>

A final comment on the development of this competence is that there was very little evidence of development for Nathan and Devina during the group work projects. This is in spite of it clearly being a challenge for both students. This could be because improving one's language proficiency is a slow process, and development of proficiency would be less demonstrable in this context because the focus of the work is on the project, and not on gaining language skills.

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<sup>176</sup> It is possible that the students possessed intercultural competencies that they could demonstrate in their native language. But, these would be less demonstrable in student group work projects in a UK HE context.

<sup>177</sup> See Case Study One, section 4.2.5, and Case Study Two, Section 5.2.5

<sup>178</sup> E.g. Lazar Interview, 0:21:38 – 0:22:26 & Edward 32:37 – 32:49

### 6.3.2 Active Listening

This competence concerns the ability to listen actively to conversations, to check and clarify meaning, and to negotiate meaning until a common understanding is reached. It was a relevant competence to all of the students in both groups, although it was more critical for some of the participants than others.

#### 6.3.2.1 *How the competence was displayed, and evidence of learning*

In Case Study One there was evidence that some of the students missed what other students were saying (see Case Study One, Incident One, section 4.3.1). During this incident the other students did not listen to Carl volunteering himself for the task of researching the region variable. However, during the second incident in this group it was clear that Carl also did not check and clarify meaning enough in the online discussions at this stage (Stage 3).<sup>179</sup>

In Case Study Two *Active listening* was a competence that Devina, as a non-fluent speaker, could have used more frequently in order to understand what the others were discussing. In contrast, the most active member of the group, Chahel, who was a fluent speaker, used comprehension checks and clarification checks more often than anyone else in the group.<sup>180</sup> So in intercultural interactions it was clear that this competence was important for fluent speakers, but that less fluent speakers did not have the ability or wherewithal to check as well.

In Case Study One, the lack of active listening when negotiating task allocation contributed to a disagreement later on (see Case Study One, Incident One, section 4.3.1). In this instance the lack of active listening led to a task allocation which Carl did not agree with, although he decided to conceal his opposition to it so as to avoid conflict.<sup>181</sup> However, the other group members were not aware that Carl was unhappy with the task allocation and so continued as normal. The learning from this incident by the other group members was limited because the students were not aware that they had not listened to Carl until reviewing the incident during the interview, so that was their first

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<sup>179</sup> See Case Study One, Section 4.2.5.

<sup>180</sup> See Case Study Two, Section 5.2.5.

<sup>181</sup> Carl Interview, 05:05 – 07:15

opportunity to reflect on this incident. At this time both Nathan and Edward became aware that they had not paid attention to what was being said. They both reflected on the contextual circumstances of the incident (Nathan was late, and Edward was multitasking).<sup>182</sup> Hitchens also attributed his lack of listening to contextual circumstances (he was thinking about what he disagreed with on the model development).<sup>183</sup> However, instead of reflecting on whether or not he was listening attentively, he turned it around to Carl, and suggested that Carl's predilection to talk a lot meant that Hitchens was unable to pay attention to everything that he said.<sup>184</sup> So in this instance, Hitchens did not develop in this area because he did not think there was a competence that he needed to develop. In contrast, Edward identified steps he could take to make sure that he was able to listen more attentively in the future (less multitasking).<sup>185</sup> Nathan became aware of his lack of active listening but was unsure of what was the best action to take in this type situation in the future.<sup>186</sup>

In the online discussions during Incident Two, neither Carl nor Hitchens used very many clarification checks.<sup>187</sup> This was while they disagreed. Using clarification checks could have helped them to better understand each other's positions, and the tone behind their online posts. From this incident Carl said it was an interpretation issue (and Edward agreed), or rather that they had different interpretations of how to proceed with the project.<sup>188</sup> However, whilst they were able to perceive that they had different interpretations of how to do the work (see section 6.2.1), they did not reflect on how they could have behaved in order to have better understood these different interpretations earlier, and thus avoid the prolonged disagreement. In this instance, the challenge of trying to understand each other did not stimulate learning beyond recognising that there could be different interpretations. However, this step for learning is still important as a prerequisite to then knowing that one needs try to find out what those different interpretations are.

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<sup>182</sup> Nathan Interview, 04:45, 05:43 & Edward Interview, 05:09 – 05:20

<sup>183</sup> Hitchens Interview, 04:38 – 06:19

<sup>184</sup> *ibid*

<sup>185</sup> Edward Interview, 43:29 – 43:41

<sup>186</sup> Nathan Interview, 45:53 – 45:58

<sup>187</sup> See Case Study Two, Section 5.2.5.

<sup>188</sup> Case Study One, M5, 14:15 – 14:24



In Case Study Two Devina was not listening actively during the discussion (see Case Study Two, Incident Two, section 5.3.2), and, as a result, this led to her sharing work that contradicted the aims of what they had all previously discussed (see also section 6.3.1). In her case, the other group members did not realise that she had misunderstood because she covered up her misunderstanding, and acted as if she had understood the conversation.<sup>189</sup> During the interview Devina revealed that the strategy she had for understanding was to listen passively until she understood the discussion.<sup>190</sup> However, it was clear from her experiences of the project that this was not enough for her to understand what was being discussed. It also reduced the number of contributions she could make to the discussion. During her interview Devina did not reflect on how she could improve her understanding of the group discussions, she also did not seem aware that her strategy for understanding what was being discussed was problematic, whether in the instance of a linguistic misunderstanding or an academic misunderstanding. However, Devina did admit to feeling separated from the decisions that the group were making on the project.<sup>191</sup> So, she was aware of the consequences of being less involved, but possibly because she avoided trying other strategies for listening and understanding, she did not develop in this respect.

### ***6.3.2.2 Similarities and differences between these two groups over competence usage***

The two groups' experiences of active listening were quite different in that there were clear instances for all of the group members in Case Study One where they were not listening to each other. In Case Study Two, however, it was only clear in some instances that Devina was not listening attentively to the other group members. The other group members in that group used more clarification checks (particularly Chahel, whose clarification checks served to help the others as well)<sup>192</sup> and did not seem to experience problems due to a lack of attentive listening. The ramifications of this for each group were also different. In Case Study One the lack of listening was a factor in the later discord and disagreement because Hitchens, after he took over Carl's task in researching the region variable, and then took over Carl's other task in the model development (see

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<sup>189</sup> Case Study Two, M4, 48:02 to 48:21

<sup>190</sup> Devina Interview, 0:01:30 – 0:01:38

<sup>191</sup> Devina Interview, 0:17:13 – 0:17:19

<sup>192</sup> See Case Study Two, Section 5.2.5.

Case Study One, Incident Two, section 4.3.2). This contributed to the prolonged disagreement between Carl and Hitchens, which for a time took them away from working on the project. This was a problem because they were the most involved in the model development and the task discussion more generally.<sup>193</sup> The incident where it was clear that Devina had not fully understood the nature of the task also took time away from other aspects of the work, and it had larger ramifications on the group's progress because Devina, already with the lowest surface participation levels, then also felt peripheral to the group decisions.

In both groups, the lack of active listening contributed to discord between group members, yet at the same time the importance of this competence was not recognised by those involved. In Case Study One, during the discord between Carl and Hitchens, Carl was unaware that he had not been listened to, and Hitchens was unaware that he had not heard Carl until he was able to review the clip. Even after he and the others had reviewed the incident, they did not realise that listening was the problem; they referred to contextual factors instead. In Case Study Two, Devina did not realise that she needed a different strategy in order to make sure that she had accurately understood what was being discussed. And, the consequences of her not understanding the task (they dismissed her work) contributed to her feeling excluded from the group decision-making.<sup>194</sup> However, even though she felt this, she did not disclose this to the other group members, whereas the group members in Case Study One did eventually disclose some of their sentiments about their disagreement (see section 6.3.3.3).

### **6.3.2.3 Concluding comments on this competence**

The two main contributions that this data adds to our understanding of *Active Listening* are first, how important the competence is to both fluent and non-fluent speakers, and second, that the development of this competence is obscure in this data. It seemed that some students knew to use it, and some did not. But there was no evidence of the students who were less aware of this competence learning to develop it. In both cases a lack of active listening had two effects on the group. The first was, self-evidently, not

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<sup>193</sup> See Case Study One, section 4.2.3.

<sup>194</sup> Devina Interview, 0:17:13 – 0:17:19

everyone was properly listened to or understood in discussions, which led to misunderstandings and slowed down the group processes and progress with the task. The second effect was that in one case there was an impact on the group rapport (see section 6.4), whereby an interpersonal conflict followed an incident where the students were not actively listening to each other (see Case Study One, Incident Two, section 4.3.2). None of the students for whom this competence was relevant displayed significant learning or development. In some cases, contextual factors were used to explain when students did not listen or fully understand and, in the case of Devina and Nathan, the students used passive strategies to try to understand what they had not immediately grasped; they did not disclose their lack of understanding to the others.

### **6.3.3 Building of Shared knowledge and Mutual Trust**

Building of shared knowledge and mutual trust describes the process in which students elicit and disclose information for mutual understanding, as well as share information in a structured way so that other students can understand. In both meetings the students had to balance between making the best decisions based on the data available and making a decision that satisfied the other group members. This required the students to share their research effectively so that the best decisions could be made. A twist on this competence, which was revealed through the data, was an aspect of this competence, namely *Disclosure/Non-Disclosure*, which will be discussed further in section 6.3.3.3.

#### **6.3.3.1 How the competence was displayed, and evidence of learning**

In Case Study One there were two incidents where the students' ability to build shared knowledge was tested. There was the first incident where Edward was trying to promote discussion amongst the team members (see Case Study One, Incident One, section 4.3.1). However, in focusing too much on the promotion of the discussion he was unable to notice where Carl had volunteered himself for work in the negotiation of who would do which task.<sup>195</sup> In the second incident, in Case Study One, Edward was trying to resolve the conflict between Carl and Hitchens. This required him to make sure that their perceptions of the disagreement were shared in a certain way, and that both students were able to reach a point of mutual understanding. In this incident Edward was using

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<sup>195</sup> Edward Interview, 04:56 – 04:58

the competence, but Hitchens and Carl were not (or rather Carl tried to use it, but unsuccessfully). In both incidents there were contextual factors involving the prerogatives and attitudes of the other group members that influenced Edward's ability to enable the group to reach a solution that satisfied the other group members.

In Case Study Two there were several instances of Chahel engaging the other group members in order to build a mutual understanding of the different sets of information that were important to the development of the statistical model. This built up to an important moment in the later stages of the project (Case Study Two, Incident Four, section 5.3.4) where the students had had a long meeting trying to decide on a final model before Chahel had suggested delaying the decision as a compromise, but Lazar then asked them to decide at the meeting. This was interesting in the sense of developing shared knowledge and mutual trust because, until this point, that was what they had been doing. However, when Lazar pushed them to decide, building shared knowledge as they progressed became less important than deciding on a final model. Following this incident, Lazar took the lead on the model development, and the other students focused on other tasks.

In Case Study One, Edward was quite experienced at managing group projects and discussions,<sup>196</sup> so when it came to the second incident where he had to inform Carl and Hitchens about how each was being perceived by the other, and also keep the reconciliation on track, Edward was using competencies that were already well-developed. That is to say, this incident (Case Study One, Incident Two, section 4.3.2) did not challenge his capabilities. However, for the first incident Edward had not been aware that Carl had volunteered himself for the same task as Hitchens until reviewing the meeting in the interview. On that occasion the lesson that Edward took from it was that his ability to build shared knowledge amongst the group members was hampered by contextual circumstances. He was doing too many things at once (he was also taking the minutes) during that meeting, and that prevented him from managing the discussion more effectively.<sup>197</sup>

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<sup>196</sup>Edward Interview, 00:09 – 00:20

<sup>197</sup> Edward Interview, 35:08 – 35:23

In Case Study Two, there was learning for Chahel in how to manage contributions and make sure that everyone had understood what had been discussed, since he had not performed this role before.<sup>198</sup> However, it did not come in the form of a learning incident, and Chahel was not challenged to rethink how he built shared knowledge in the group. For Lazar, he showed that he was able to prioritise when it was important to build shared knowledge, and when it was important to prioritise the completion of a certain task. He did this in assuming responsibility for the model development during and after Incident Four (see Case Study Two, section 5.2.3). However, he did not demonstrate learning in the ability to make these decisions, only being driven by the contextual circumstances (time concerns),<sup>199</sup> in his decision to assume more leadership in the model development at the expense of sharing knowledge on each stage of its development.

#### ***6.3.3.2 Similarities and differences between these two groups over competence usage***

There were two notable similarities between both groups in the use of this competence of building shared knowledge. The first is that there is very little evidence of development among the group members. Either the students were already well practiced in this, or they experienced little resistance when performing actions to build shared knowledge. The second is that in both groups contextual factors were used to explain the occasions when group members were unable to build shared knowledge. So rather than a lack of ability in the competence itself, the students looked to contextual factors to explain when it was not possible to build shared knowledge.

There is also a further pertinent similarity between the groups in relation to building shared knowledge, which is linked to language proficiency and the experiences of Nathan and Devina. These students asked the fewest clarifying questions in their group,<sup>200</sup> and they also had passive strategies for trying to understand what was being discussed.<sup>201</sup> It is possible that the task of building mutual understanding was also a competence that they needed to develop, alongside active listening and language proficiency. However, because in both groups it was the leaders/managers who

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<sup>198</sup> Chahel Interview, 44:53 – 45:20

<sup>199</sup> Lazar Interview, 04:47 – 05:46

<sup>200</sup> See Case Study One, section 4.2.5., and Case Study Two, Section 5.2.5

<sup>201</sup> Devina Interview, 0:01:30 – 0:01:38 & Nathan Interview, 45:45 – 45:51

assumed the task of building shared knowledge,<sup>202</sup> the centralisation of this task actually might have had a negative impact on the group's ability to achieve mutual understanding. In contrast, if this task had been more dispersed, with all the participants sharing the task of achieving mutual understanding and building shared knowledge, then the students with lower English language proficiency may not have had comprehension issues to the extent that they did.

### **6.3.3.3 Disclosure/Non-disclosure**

*Disclosure/Non-disclosure* is not a competence that is in the GPCF, however, it is relevant to this data. This competence concerns the choices that participants make as to whether to disclose fully their thoughts about the project (or certain aspects of the project) to their fellow team members. An example of this from the data is Incident One from Case Study One (section 4.3.1), where Carl did not disclose his disagreement over Hitchens researching the region variable, and in the same incident Hitchens concealed that he disagreed with Carl on the model development. The acts of disclosing or non-disclosing could be rapport-related, task-related, or both. Then, once the decision to disclose or non-disclose has been made, there is also a spectrum of acts from full disclosure, to full non-disclosure. In intercultural situations, the ability to judge appropriately when to disclose or conceal something that could change the dynamic is very important. People from different backgrounds may have different norms when it comes to what is appropriate to disclose or conceal, the appropriate level of this action, and how directly to do so.

#### **6.3.3.3.1 How the competence was displayed, and evidence of learning**

This competence was relevant to both groups, on different occasions. For Case Study One it was relevant in Incident One (section 4.3.1) and also during Incident Two (section 4.3.2), when Carl and Hitchens were in disagreement over how to develop the model. In this second instance there were various acts of disclosure and non-disclosure. The important two acts, which will be focussed on here, were towards the end of the reconciliation where Hitchens disclosed that it might have been a language issue that

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<sup>202</sup> See Case Study One, section 4.1.1, and Case Study Two, Section 5.1.1

affected how he came across,<sup>203</sup> and Carl concealed the fact that he did not believe Hitchens.<sup>204</sup>

In the other group the main incident where the disclosure and non-disclosure was salient to the group's project was when they were trying to decide on a final model (Case Study Two, Incident Four, section 5.3.4). At this time Lazar was privately frustrated at the amount of time they were taking on the project,<sup>205</sup> so he pushed the group to decide before the end of the meeting. Chahel, once Lazar had pushed them to decide, was privately relieved because he felt that finally someone else was sharing the leadership burden.<sup>206</sup> However, Devina privately felt that she was being excluded from the decision-making. So, from this incident there were three acts of non-disclosure. Towards the end of the project, in their final meeting, Lazar disclosed that he thought they had spent too much time on the project and was surprised to find that they had spent less time than other groups.<sup>207</sup> However, neither Chahel nor Devina disclosed at any point how they felt about either the leadership burden or feelings of being left out. It is difficult to judge in this instance whether their non-disclosures had any impact (positive or negative) on the project. However, Lazar's disclosure later on over his concerns about the time they were taking on the project was useful for Lazar because it corrected his impression that they were working too slowly.

In Case Study One Hitchens developed a better understanding of when and what to disclose as the project progressed. Upon reviewing the first incident, he commented that he should have stated his objections to Carl's work sooner, recognising that concealing this had adverse consequences.<sup>208</sup> For the second incident, where he disclosed that his language ability might have had an impact on how he was understood, there was less reflection on the timing of the disclosure itself, but more on the impact of his background and previous experiences on his communication style.<sup>209</sup> From the first incident Carl did not show any evidence of development in terms of disclosing when he disagreed with

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<sup>203</sup> Case Study One, M5, 12:46 - 12:48

<sup>204</sup> Carl Interview, 45:01 - 45:24

<sup>205</sup> Lazar Interview, 13:38 - 14:45

<sup>206</sup> Chahel Interview, 0:10:23 - 0:10:48

<sup>207</sup> Case Study Two, M8, 02:02:45 - 02:02:51

<sup>208</sup> Hitchens Interview, 04:38 - 06:19

<sup>209</sup> Hitchens Interview, 45:14 - 45:47

the task allocation. As discussed in section 6.3.4, he could not conceive of a way to disagree that would not have resulted in squabbling. Then, when he disagreed with Hitchens online, he did not seem to be concerned about whether his disagreement would exacerbate their progress. However, in the second incident there was development within the incident itself where Carl learnt to exercise more judgement. Carl did not openly disagree “because that would have made it worse.”<sup>210</sup> Instead Carl did not disclose his disagreement for the sake of the group rapport. However, although there is this evidence in the data that he developed an understanding of when to disclose his disagreement and when not to, he did not reflect on this during the interview, except to mention that he still felt tense at times when disagreeing with Hitchens.<sup>211</sup> So, for both Carl and Hitchens, their development in this competence was mixed, and depended on the extent to which their disclosures or non-disclosures were challenged later on.

In Case Study Two during Incident Four (section 5.3.4), although there is evidence of disclosure and non-disclosure, there is less evidence of development or of understanding of when to disclose or conceal. However, from their interview comments, it was evident that their feelings at the time were important to them, yet neither Chahel nor Devina disclosed their respective thoughts about the decision-making process to others. They also did not reflect on whether this was the appropriate action to take. For Lazar also there was no evidence of development of judgement as to when to disclose or conceal. The longitudinal data showed that Lazar was concealing his frustration with the group’s slow progress,<sup>212</sup> but then towards the end when they had almost finished, he disclosed this to the others as a suggestion of what they could say they would improve for the teamwork aspect of the presentation.<sup>213</sup> At this point the contextual circumstances had changed, as they had almost finished their work, and the topic of discussion was how to improve their teamwork. Here Lazar did choose an appropriate occasion to disclose his frustrations; however, there is no evidence of development in this competence from the interviews.

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<sup>210</sup> Carl Interview, 45:01 – 45:24

<sup>211</sup> Carl Interview, 22:00 – 23:42

<sup>212</sup> Case Study Two, M8, 02:02:45 - 02:02:51

<sup>213</sup> *ibid*



#### 6.3.3.3.2 Similarities and differences between these two groups over competence usage

There are several differences between the two groups relating to this competence. The first is that in Case Study One there is evidence of development of their understanding of the appropriate moments to disclose or conceal; however, there is no such evidence in Case Study Two. The second difference is that in Case Study One there were specific moments during the project, which, upon reviewing the meetings, the students revealed that their actions concealed what they really thought at the time. In Case Study Two, although the students revealed what they were concealing during the interviews, what they concealed was primarily their general impressions of the progress of the project (lack of progress, shared leadership burden, feeling apart from group decisions). So, there was not a specific moment where the students felt they should have said or done something differently. Part of the reason for this could be explained by the fact that in Case Study Two their non-disclosures were not challenged during the project discussions. In contrast, Hitchens and Carl challenged each other through their subsequent actions, and through this caused them to reconsider what they had concealed.

#### **6.3.3.4 *Concluding comments on Building Shared Knowledge and Mutual Trust, and the aspect of Disclosure/Non-Disclosure***

There are several contributions that the data makes to our understanding of this competence. The first is that *Building Shared Knowledge and Mutual Trust*, like *Active Listening*, was a competence that was very important to the group processes, particularly in how it influenced the discussions between Carl and Hitchens in Case Study One. Failure to use this competence in both cases led to misunderstandings, and feelings of exclusion.<sup>214</sup> None of the students provided evidence of learning when it came to enhancing their competence in *Building shared knowledge and mutual trust*, but they did when it came to the aspect of *Disclosure/Non-disclosure*, where Hitchens and Carl, when challenged by each other, learnt about what they should have disclosed, and at which moments. In both groups, the students reached a point where they had priorities that were more important than building shared knowledge. Students from both groups cited contextual circumstances (such as time pressures) as influencing factors in their

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<sup>214</sup> See Incident Two, Case Study Two (section 5.4.2), and Incident Two, Case Study One (section 4.4.1)

decisions about sharing with the group. In both groups, the task of building shared knowledge was centralised to the manager/leaders of the group, and it is possible that the groups would have benefitted from dispersing this task more evenly to all of the members of the group.

On *Disclosure/Non-disclosure* specifically, there were three salient features to this competence from the data that contribute to our overall understanding of *Building Shared Knowledge and Mutual Trust*. The first was that the students who remembered specific moments of when they chose to disclose or conceal were better able to reflect and develop in this area. The second feature is that those students who remembered specific moments also showed evidence of learning when other students challenged them about what they had concealed. This suggests that in order to develop in this area, students have to be challenged, and possibly make mistakes over what they disclose or conceal. The third feature is that at these moments when a student conceals or discloses something, their learning is not necessarily related to the act of disclosure or non-disclosure, but to other aspects of that particular context, such as *Stylistic flexibility* (as it was for Carl and Hitchens). This suggests that there is a connection between the two. The initial act of disclosing or not disclosing is aligned with *Building Shared Knowledge and Mutual Trust*, but once one has made the decision to disclose, then *how* one discloses is linked with one's stylistic flexibility.

#### **6.3.4 Stylistic Flexibility**

This is the competence of using different styles of communication to suit different purposes and in a variety of contexts (e.g. formal/social, face-to-face/online). During the course of their projects, the need to develop stylistic flexibility became significant for several students in both of the groups. It applied to the ability to disagree, to explain clearly to others, and to use rapport-related communication effectively.

##### **6.3.4.1 *How the competence was displayed and evidence of learning***

In Case Study One, the students who displayed the most struggles with their ability to adapt their communication styles to different situations were Carl (see Case Study One, Incident One, section 4.3.1), and Hitchens (see Case Study One, Incident Two, section

4.3.2). For Carl, the problem came when he wanted to disagree with the others over the task allocation (Carl had wanted to work on the region variable instead of Hitchens), but could not conceive of a way to do this without the discussion descending into “petty squabbling.”<sup>215</sup> The consequence of this was that he kept his objections to himself, but was then frustrated when Hitchens had not done the work on the region variable he had volunteered himself for.

Hitchens’ struggles with stylistic flexibility became apparent during the incident when his language choice had an aggravating effect on his disagreement with Carl over the development of their statistical model. He used phrases that Carl perceived as arrogant and patronising.<sup>216</sup> However, Hitchens was not aware of the effect of his language choices until Carl had pointed it out to him. Hitchens’ language difficulties were complex. Hitchens appeared to be fluent in English; however, he admitted to having language issues after his disagreement with Carl (see Case Study One, Incident Two, section 4.3.2). This issue was around the interpretation of the phrase “I’ll keep you updated.”<sup>217</sup> Hitchens thought that this phrase was an invitation to collaborate, while Carl interpreted it as an indication of unilateral action. He also encountered problems in how he phrased his disagreements with Carl, and he was seen as being patronising and arrogant<sup>218</sup> (this will be looked at in more detail in section 6.4.1.1). Hitchens appeared to be highly proficient in English. Indeed, Carl did not believe that language could be an issue for him. However, from Hitchens’ own perspective it was a problem. The extent to which it was his language proficiency, or his stylistic flexibility, is unclear as the boundary between the two is fuzzy. One’s ability to use language to suit different purposes could be constrained by language proficiency, or a lack of experience in using language in different contexts, or both. For Hitchens, there were clearer indications of development in his own understanding of how his language choices could have an impact on the reactions of the other group members.<sup>219</sup> Part of the reason for this is that Carl explicitly stated the impact that his language choices had on how he felt. In their discussion about the disagreement, Carl quoted the phrases aloud from Facebook that he had a problem

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<sup>215</sup> Carl Interview, 05:05 – 07:15

<sup>216</sup> Case Study One, M5, 12:50 – 13:07

<sup>217</sup> Case Study One, M5, 10:58 – 11:19

<sup>218</sup> Case Study One, M5, 12:50 – 13:07

<sup>219</sup> Hitchens Interview, 48:20 – 48:21

with.<sup>220</sup> This enabled Hitchens, both in the interview<sup>221</sup> and during the reconciliation,<sup>222</sup> to reflect on how he needed to be more careful with his language choices as a non-fluent speaker.

In the other group, Paul, who came from a different academic discipline, struggled to adjust his language and use the appropriate terms to explain his ideas and suggestions to the other group members (see Case Study Two, Incidents 3 & 5, sections 5.3.3 & 5.3.5). His ability to adjust his style of talking was also limited by his knowledge of the project. However, as the project progressed, he became more proficient at explaining his ideas to the others (see Case Study Two, Incident Five, section 5.3.5).

The three students for whom this competence was relevant showed different levels of development. Carl seemed to have developed the least in that by the end of the project he could not consider different ways of disagreeing with Hitchens. Moreover, he expected Hitchens to be the one adapting his language, but not himself. Hitchens, in contrast, became more aware of his language choices during the project.<sup>223</sup> Paul's learning was somewhere in between these two. He showed through the project a development in his ability to adapt how he explained his work so that it was more comprehensible to the others (see Case Study Two, Incident Five, section 5.3.5). However, he did not discuss this during the interview if he understood that he had developed this ability, even though it is evident in the meeting data.

#### **6.3.4.2 Similarities and differences between these two groups over competence usage**

One of the main differences between the two groups, particularly when comparing the experiences of Hitchens and Paul, is the type of cultural background that can influence one's stylistic flexibility. For Paul, the cultural difference that he had with the other students was his academic disciplinary background, as a pure mathematician rather than as a statistician, which both he and his group members recognised as creating a difference in how Paul spoke in task-related communication compared to them.<sup>224</sup><sup>225</sup>

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<sup>220</sup> Case Study One, M5, 05:56 – 07:51

<sup>221</sup> Hitchens Interview, 48:20 – 48:21

<sup>222</sup> Case Study One, M5, 13:07 – 13:09

<sup>223</sup> Hitchens Interview, 48:20 – 48:21

<sup>224</sup> Paul Interview 00:16:06 – 16:25

<sup>225</sup> Lazar Interview, 31:22 – 32:56 and Chahel Interview, 04:41 – 05:51

However, for Hitchens, there were two influencing factors that he identified, one was being a non-native speaker<sup>226</sup> (his native language was Greek), and the other was his previous professional experience in the army.<sup>227</sup> His military experience meant he was more used to communicating in a direct style, and sometimes he translated phrases directly from Greek, without considering if they had the same meaning in English. This could be particularly important if someone wants to contribute to a fast-moving discussion and does not have time to consider their phrasing in detail before speaking. However, although the type of cultural background was important, it is clear that previous experience was an important factor for both of the students in terms of their ability to communicate. In fact, Carl's lack of multicultural experience<sup>228</sup> prevented him from understanding that Hitchens' intent could have been different to how he interpreted it (see section 6.5.1). In their group's second incident Hitchens saw his struggles as intercultural, whereas Carl was not open to the possibility of different linguistic interpretations of phrases.<sup>229</sup> For Hitchens the challenge was using the stylistic flexibility required for working in different contexts, but as an English language learner, it was also linked to language proficiency. As a non-native English speaker, he struggled in this competence, and saw this as a reason for struggling. However, for Carl, who was a native English speaker, he was not aware that he needed to change his communication style. So, although he did not have the same language barrier as Hitchens, there was a barrier in his lack of experience in working in multicultural contexts, and he was unable to appreciate that he may need to expand his stylistic repertoire for intercultural communication.

The level of learning for each of the students was different. For both Hitchens and Paul, who demonstrated learning in this area, they were challenged on their stylistic flexibility during the project, and that seems to have stimulated their learning. In contrast, Carl did not take on the challenge of trying to disagree with Hitchens over the role allocation during the first incident. Although Carl saw disagreeing with the task allocation as a barrier, he did not attempt to overcome that barrier, so he was not stimulated to learn different ways of negotiating the task allocation when there is disagreement.

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<sup>226</sup> Hitchens Interview, 24:28 – 24:59

<sup>227</sup> Hitchens Interview, 45:14 – 45:47

<sup>228</sup> Carl Interview, 44:11 – 44:22

<sup>229</sup> Carl Interview, 45:01 – 45:24

#### **6.3.4.3 Concluding comments on this competence**

From this data there are several contributions to our understanding of *Stylistic Flexibility*. It seems clear that one's stylistic flexibility is influenced by one's cultural background, and that background is not necessarily based on traditional ideas of national culture, as it can also be discipline based. Previous experiences, cultural background (such as academic discipline) and language background were also shown to have an impact on stylistic flexibility. Language level could have an influence for non-fluent speakers, but the exposure to intercultural situations could also be a factor in students' recognition of the need to develop in this skill. If students have had limited previous exposure to working with people from different cultures, they may not understand how they need to learn to adapt their own style. In terms of development, the learning from this competence was stimulated for the students who encountered challenges and decided to try and navigate through them. Avoiding the situations that they found challenging meant that those students did not test their skills, and so did not develop ICs from the experiences.

#### **6.3.5 Concluding Comments on this Cluster**

The Communication Cluster of the GPCF was where the students faced the most frequent challenges and where there was also the strongest evidence of learning and need for further learning. From the data there are some clear contributions to how this cluster can be adapted to the context of working in multicultural student teams. The first is the addition of *Language Proficiency* to the communication cluster. This competence was relevant to both groups where there were students whose lower English language levels limited their participation. *Active Listening* is a competence that was relevant to both the students with low levels of English proficiency, and also students who had a higher level of proficiency. There were occasions in both groups where the lack of active listening led to misunderstandings. Another aspect to this competence, which is important in terms of development, was that it tended to be the students in leading roles in the groups who used this competence most frequently, possibly taking away from other students the opportunity to practise this skill and develop it further. *Building Shared Knowledge and Mutual Trust* was a competence that was very relevant to the students' projects. As with the previous competence, misunderstandings came about as a result of the students not sharing knowledge with each other, as well as feelings of exclusion from the group processes. This data also contributed to the concept of *Disclosure/Non-disclosure*, which

was relevant to the students, and their decisions as to when to disclose or not disclose disagreement or lack of comprehension of the group processes. Learning from this competence was not so evident in the data, with only the students who were explicitly challenged learning more about what they should have disclosed and when. The final competency in this cluster that was important in the data was *Stylistic Flexibility*. The contribution from this study was greater understanding of how one's stylistic flexibility can be influenced by previous experiences, language ability, and cultural background. In terms of learning, the students who were made aware of their need to develop stylistic flexibility engaged with the challenge and developed in this skill. In contrast, the students who did not engage with this challenge, or who were unaware of the need to develop, did not. From this data it is evident that intercultural communicative competencies, and how use them to communicate in multicultural teams, are incredibly important for students to develop. However, it is also clear that these skills are not automatically developed from teamwork experiences, although there is some evidence of instances of development. This suggests that other methods, or tools to accompany the experiences, need to be developed.

#### **6.4 Competency Cluster Three: Relationships**

Cohesion between team members is essential for the team to be successful. In the relationships cluster are the competencies that can improve team cohesion (see Table 65). Within this GPCF competency cluster are the competencies of *Rapport building*, which is the ability to build a good rapport within a team, and *Interpersonal attentiveness*, which is the ability to nurture relationships through paying attention to people's personal sensitivities. These two competencies are interrelated, as an action to build rapport could also be one that uses the competence of *Interpersonal attentiveness*. In the data, *Rapport building* (and lack of it) was evident in the inductive coding.<sup>230</sup> *Rapport Building* was important to both groups in how they viewed each other (such as Case Study One's lack of rapport building at the start<sup>231</sup>, and how Devina from felt excluded from the group processes).<sup>232</sup> However, there were no incidents where this competence was explicitly demonstrated or developed. Instead what was evident from the incidents

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<sup>230</sup> See Case Study One, section 4.2.4 & Case Study Two, section 5.2.4

<sup>231</sup> See Case Study One, Section 4.2.4

<sup>232</sup> See Case Study Two, Incident Two, 5.3.2

were instances of using *Interpersonal attentiveness* and developing sensitivity to rapport with other group members. *Interpersonal Attentiveness & Rapport Building* will be discussed further below.

**Table 65 – GPCF Relationships Cluster (Spencer-Oatey & Stadler, 2009, p. 6)**

Welcoming strangers	Be proactive in breaking the ice with new people.
Rapport building	Work hard to build and sustain relationships.
Sensitivity to social/professional context	Understanding the hierarchical and power relationships they have in their working context.
Interpersonal attentiveness	Nurture relationships by being sensitive to the social as well as professional role that international partners have within groups and avoid them losing face.

#### **6.4.1.1 *Interpersonal Attentiveness and Rapport Building***

*Interpersonal attentiveness* is a competence whereby the participants pay attention to people's sensitivities, make sure that they do not feel insulted, and also employ strategies to raise rapport. This competence was particularly relevant to Incidents Two and Three (sections 4.3.2 & 4.3.3) in Case Study One, and to a lesser extent to Incident Two in Case Study Two (section 5.3.2). *Rapport Building* is the work one does to build and sustain relationships. The extent to which each group engaged in rapport building (as evidenced in the inductive coding, see sections 4.2.4 & 5.2.4), influenced each event, although it was not directly referred to during the interviews by the students (until given feedback towards the end of their interviews.)

#### **6.4.1.2 *How the competence was displayed, and evidence of learning***

The two groups had quite different trajectories when it came to interpersonal attentiveness. In Case Study Two there was a lot of early rapport building,<sup>233</sup> which meant that interpersonal attentiveness was less of an issue for them. In Case Study One interpersonal attentiveness became relevant during the course of the project because members paid less attention to rapport building in the early stages of the project and had to manage an interpersonal disagreement between two group members. However, once that disagreement was resolved there was an increase in rapport-related communication and intra-group harmony increased.

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<sup>233</sup> See Case Study Two, section 5.3.4



Interpersonal attentiveness was relevant to the second and third incidents in Case Study One (sections 4.3.2 & 4.3.3). During the second incident, it became apparent through the online discussion that Carl felt that Hitchens' actions were insulting. Hitchens was disagreeing with Carl over the process of the model development. However, it was how Hitchens was framing his disagreements that provoked an emotional response from Carl. Hitchens hedged his disagreement statements, for example stating, "Ok, I respect your opinion, but I highly disagree with that statement."<sup>234</sup> This type of language choice was perceived by Carl to be arrogant and patronising.<sup>235</sup> It could be that the lack of rapport building prior to this event contributed to how Carl perceived Hitchens' messages. After this event their disagreement became circular, where the two students began to disagree even when they had the same opinions, for example both stated that they did not think they should seek the perfect model, but then accused each other of trying to do that.<sup>236</sup> Edward perceived this disagreement as interpersonal,<sup>237</sup> and during the students' presentation at the end of the project they described it as "The battle of Facebook."<sup>238</sup>

After a few days of online disagreement Edward was able to successfully intervene and then manage a face-to-face reconciliation a few days later. During this reconciliation Carl used interpersonal attentiveness when he did not disclose his further disagreements with Hitchens over whether a language barrier played a role in the disagreement (see section 6.3.1). After this reconciliation the students in the group each had different perspectives on how well it went. Carl still felt that it was tense between Hitchens and himself,<sup>239</sup> but the others all felt that it had been handled well and that they could then move on from this.<sup>240</sup>

During Case Study One, Incident Three (section 4.3.3), Carl exhibited more interpersonal attentiveness when broaching the subject of Nathan's language ability. Carl offered Nathan help, but was hesitant in his manner and was aware of how he could come across,

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<sup>234</sup> Case Study One, Facebook conversation, 24/01/2015

<sup>235</sup> Case Study One, M5, 12:50 – 13:07

<sup>236</sup> Case Study One, Facebook conversation, 24/01/2015

<sup>237</sup> Edward interview, 30:58 – 31:06

<sup>238</sup> Meeting 8, Part 4, 06:59 – 08:05

<sup>239</sup> Carl Interview, 22:00 – 23:42

<sup>240</sup> Hitchens Interview, 23:02 – 23:07 & Nathan Interview, 20:32 – 22:01

repeating, “I hope this doesn't come across as patronising.”<sup>241</sup> In his interview Carl commented that he was still unsure if his approach was appropriate,<sup>242</sup> although Nathan commented in his interview that he did not feel patronised from the discussion.<sup>243</sup>

Interestingly, although interpersonal attentiveness was a core issue in the disagreement between Carl and Hitchens, neither of them displayed an awareness of the role of this competence or how to develop it further from their experiences in the project. What they did do, however, was consider how to change their behaviour regarding competencies that are linked to interpersonal attentiveness. Hitchens realised that his language choices were at fault, and so resolved to be more careful over that aspect in the future.<sup>244</sup> He was also able to trace back how that related to his previous professional experience and linguistic background.<sup>245</sup> However, although in the interview Hitchens' comments did not indicate any development in interpersonal attentiveness specifically, following the disagreement his use of rapport-related communication increased.<sup>246</sup> There is therefore evidence of some learning to be more interpersonally attentive, and that he needed to build rapport with the other students. Carl's realisation was that contextual circumstances influenced his mood (see Case Study One, Incident Two, section 4.3.2). But, for the incident with Nathan, in the interview he admitted that he was unsure about how to discuss the subject.<sup>247</sup> As such, it is difficult to judge his development in interpersonal attentiveness, as he did not seem to have any previous experiences of this sort to compare it with.<sup>248</sup>

In Case Study Two there was one incident where interpersonal attentiveness was an issue. This was during Incident Two (section 5.3.2) when the other group members dismissed the work Devina had done. In her interview, Devina did not specifically refer to her sentiments from during this incident, commenting when asked if she was happy about it, “It's okay I think, because you're working as a team, you can't like not agree and

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<sup>241</sup> Case Study One, M6, 56:40 - 57:10

<sup>242</sup> Carl Interview, 42:39 – 42:53

<sup>243</sup> Nathan Interview, 32:18 – 32:51

<sup>244</sup> Hitchens Interview, 24:28 – 24:59 & 45:14 – 45:47

<sup>245</sup> Ibid

<sup>246</sup> See Rapport-related Communication tables, Case Study One, section 4.2.4

<sup>247</sup> Carl Interview, 41:41 – 41:55

<sup>248</sup> Ibid

then do your own work, that is not going to work for the team.”<sup>249</sup> So although she felt distanced from the decision-making process, she did not appear to have a strong emotional reaction against it. This could be because the group engaged in rapport building from the start of the project, and even though she did not feel part of the decision-making of the team, she felt part of the team in other ways.

#### **6.4.1.3 Similarities and differences between these two groups over competence usage**

In Case Study One, there were issues of interpersonal attentiveness. This could in part be due to the group not building rapport in the early stages of the project, leading to negative interpretations of each other’s communication when they disagreed. However, although they had problems with interpersonal attentiveness, the evidence of learning of this competence was limited in the interviews, and the students more often looked to other related competencies as areas of improvement. However, in the longitudinal data there is evidence of an increase in rapport-related communication, so even though the students did not articulate their learning, it seems that they were aware of the need to build rapport after the disagreement. In Case Study Two, interpersonal attentiveness was not such an issue since the group members each had built a good rapport from the start. This meant that when there was an issue that was potentially aggravating, the student whose could have been aggravated did not have a strong emotional reaction against it, and still felt like part of the team, however, this level of rapport did not stop Devina from feeling excluded from certain processes and decisions.

Both of these incidents, in different ways, highlight the importance of building rapport early in the group project so that actions that are potentially interpersonally sensitive will not provoke a strong negative response, which can impede process. They also show that learning to build rapport, and learning interpersonal sensitivity does not develop automatically, as the students who were involved in these incidents did not view their learning to be related to growth in interpersonal attentiveness. The difference between the groups is that Case Study One did not build rapport early on, and so suffered the consequences of this, whereas Case Study Two did build rapport and so their progress was not impeded.

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<sup>249</sup> Devina Interview, 17:19 – 17:28

#### 6.4.1.4 Concluding comments on these competencies in the Relationships Cluster

The findings from this data show that *Interpersonal attentiveness* and *Rapport Building* are important competencies for student teamwork projects. However, when there were challenges in interpersonal attentiveness between the students, there was not a lot of evidence of learning or consideration of how to make sure that others did not feel disrespected. This was true in both groups. However, the building of rapport mitigated aggravating actions in Case Study Two whereas the students in Case Study One did not have the same experience. One other aspect of interpersonal attentiveness that came to light in the study was the impact that language choices could have on how a message is received, even when the intent is neutral. If the group had failed to build sufficient rapport before this occurred, then disagreements could become interpersonal conflicts.

### 6.5 Competency Cluster Four: Personal Qualities and Dispositions

*Personal Qualities and Dispositions* is a competence cluster that focuses on people's individual characteristics. These include *Self-awareness*, *Inner Purpose* and *Flexibility* (see Table 66 below). However, from the data of the two case studies the most relevant competencies were *Self-awareness* and *Flexibility*, each of which are discussed further below.

Table 66 – GPCF Personal Qualities and Dispositions Cluster (Spencer-Oatey & Stadler, 2009, p. 6)

Spirit of adventure	Motivation to seek out variety and change.
Self-awareness	Be conscious that our own behaviour, while normal for us, may be considered strange
Acceptance	Adapt positively different behaviours that may go against our sense of what is normal and appropriate.
Flexibility	Willing to adapt our behaviour to suit other cultural contexts.
Inner purpose	Strong internal sense of where we are going.
Coping	Possess well-developed methods of dealing with stress.
Resilience	The ability to remain positive when things go wrong.

#### 6.5.1 Self-awareness

Self-awareness incorporates an awareness of how one's own behaviour may seem strange or unfamiliar to others. It is also the competence related to understanding how others interpret one's communication or behaviour. Self-awareness is a competence

that threads through the competencies analysed above. It is relevant to *Goal orientation*, *Language proficiency*, *Stylistic flexibility* and *Interpersonal attentiveness*. As such, isolating the display and development of this competence is challenging because it is so often linked to other competencies.

#### **6.5.1.1 How the competence was displayed, and evidence of learning**

In each of the incidents in Case Study One, Carl displayed varying levels of awareness of how the others in the group may perceive him for his behaviour. In Incident One (section 4.3.1) he was aware he could come across as petty if he disagreed with the task allocation. In Incident Two (section 4.3.2) he was less aware of how he was being perceived by Hitchens during the discussion, and in Incident Three (section 4.3.3) he was very aware of the possibility that he could come across as patronising, repeating the concern twice during the conversation and again during the interview. In this group, Hitchens also displayed a lack of self-awareness for how he would come across online, until he was put into situations where he could reflect on his behaviour.

For Carl there were limitations to his development in understanding of language difficulties, and for how to raise his stylistic flexibility. However, with this competence he displayed more awareness of his own behaviour than any of the other participants. He considered how he might have come across in two of the incidents looked at. In Case Study One, Incident One (section 4.3.1), his self-awareness contributed to him not taking on the challenge of contesting the task allocation where Hitchens was allocated the work on the region variable. In Incident Three (section 4.3.3), he was aware that he could come across as patronising to Nathan in offering him help with his English, but offered help nevertheless. In the interview Carl then added a second layer to his self-awareness, becoming aware of how his language choices could have thwarted his initial aim of not coming across as patronising. However, there was a limit to Carl's self-awareness when it came to his interactions with Hitchens during Incident Two (section 4.3.2). During the online disagreement Carl was not aware of how he was coming across to Hitchens, and he was also not open to the possibility that Hitchens was not intending to come across in the way Carl was perceiving him. So, for Carl there was some development in this competence, but it was not consistent throughout the project. Also, interestingly, his

level of self-awareness development was not directly related to the level of challenge that he experienced at the different stages of the project.

In Case Study Two there were three examples of self-awareness, two involving Chahel, and one involving Lazar. Over the course of the project Chahel was aware of how he could come across during the meetings and online, and worried about irritating the other students.<sup>250</sup> He did not learn this during the project, but had observed it previously, and was now experimenting with it himself. In that sense the project did not raise his level of self-awareness. The other event involving Chahel was Incident One (section 5.3.1) where Chahel and Paul had different goal orientations. From the interviews it was clear that Chahel was aware of how he came across and was thinking about what Paul was thinking. However, Paul was not aware of how he came across (as unsure), which meant that although they had different goal orientations in the discussion, it seemed to Chahel that Paul was uncertain, and did not want to back up his own ideas.

The incident involving Lazar was when he decided to push for a decision on the final model (see Case Study Two, Incident Three, section 5.3.3). In this incident he was not aware of how he may have come across to the others, particularly Devina, for how he spoke. However, when he was questioned about it during the interview, he reflected that she might have felt frustrated by the way Lazar explained the work, and that he may have been too technical. In this instance Lazar did give evidence of learning through reflection.

#### **6.5.1.2 Similarities and differences between these two groups over competence usage**

In Case Study Two, Chahel showed an awareness of how he could come across to the other students, and of what the other students may be thinking, but his teammate Paul did not. Lazar did not show self-awareness initially, but then became more self-aware upon reflection. In contrast, in Case Study One Carl had differing levels of self-awareness depending on the context of the discussion. During Incidents One and Three (sections 4.3.1 & 4.3.3), he was aware of how he may have come across, or how he could have come across had he disclosed his opposition. However, in Incident Two (section 4.3.2),

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<sup>250</sup> Chahel Interview, 39:47 – 40:01

he was not aware that he came across as someone who was controlling the model development process.

### **6.5.1.3 Concluding comments on this competence**

In each of the case studies the students were able to develop their self-awareness to some extent through reflection. In Case Study One, Carl developed more self-awareness about how he could be perceived than any of the others, but it was still selective and context dependent. In Case Study Two, Chahel demonstrated some self-awareness, but it was limited to online etiquette to make sure that he did not annoy his fellow team members. Lazar was able to develop his own self-awareness through reflection during the interview when he considered what Devina might have thought about his way of speaking.

### **6.5.2 Flexibility**

*Flexibility* refers to the intercultural competence of being able to adapt your behaviour to suit different contexts. It could be contrasted with *Stylistic Flexibility*, which is specific to language, as *flexibility* refers to a wide range of behaviour. In Case Study One, there were instances of students not demonstrating sufficient flexibility to suit their projects when they were dissatisfied with how it was progressing, or the actions of other team members who were changing their expectations for how the project should develop.

#### **6.5.2.1 How the competence was displayed, and evidence of learning**

In Case Study One, the main instance where the students were challenged to be flexible was during Incident Two (section 4.3.2) when Hitchens' thwarted Carl's plans for how the project should progress, and then Hitchens was also inflexible in his pursuit of what he thought was the correct way to proceed. There is evidence of Carl's inflexibility when he refused to accept Hitchens' proposed changes to the model development. The disagreement progressed over several days as Hitchens tried to convince Carl to change his view. In the end, Carl conceded that what Hitchens did was beneficial to the model development, but only after Edward had intervened to reconcile them.<sup>251</sup> In comparison, Hitchens was also inflexible in his pursuit of what he thought was the right way to develop the model, so much so that he alienated Carl by sending messages that were

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<sup>251</sup> Meeting 5, 11:28 – 11:34

deemed arrogant and patronising.<sup>252</sup> In their interviews neither student expressed regret in getting to the final outcome of their dispute regarding the model. Hitchens reiterated that he felt his disagreement was beneficial, even if he went about it in the wrong way.<sup>253</sup> Carl also commented that if had to choose between group rapport and getting the right model, he would have chosen to get the right model.<sup>254</sup> In this sense both of the students were inflexible in their desire to be right over the opposition of their teammates, and did not learn to be more flexible from their disagreement. It could be argued that, in contexts where there is a 'right' answer, this attitude connotes resilience. However, the model development was not a case of their being a right or wrong answer, since it was more about interpretation and being able to back up your decisions.

#### **6.5.2.2 Concluding comments on this competence**

Although there some is evidence from Case Study One (in the case of Hitchens) of the need to develop their stylistic flexibility so that their messages did not cause offence to the other students, the underlying attitudes towards being flexible about the work did not change. It could be that, even though the nature of their project was to induce uncertainty about their statistical decisions, the students were still used to the "right or wrong" culture of their previous statistical assignments. This could mean that the culture of statistics on their course encouraged the students to be less flexible in their behaviour towards divergent opinions. This was the first time the students had had to deal with messy data, and the effects of that were still present during this project. That said, this does not explain the lack of students in the other group needing to demonstrate the same competence. Instead, it may be more likely that Carl and Hitchens' disagreement caused them to become entrenched in their positions, and that their inflexibility grew from that context.

#### **6.5.3 Concluding Comments on this Cluster**

The main contribution of the study in relation to this cluster is that few of the competencies were immediately apparent in the data. Some of the competencies from this cluster were quite clearly not well suited to this context, such as *Spirit of Adventure* because it refers to the desire to seek variety and change, when the context of the project

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<sup>252</sup> Meeting 5, 12:05 – 12:25

<sup>253</sup> Hitchens Interview, 04:38 – 06:19

<sup>254</sup> Carl Interview, 57:16 – 58:41



demanded a more rigid adherence to statistical processes. The students could also not demonstrate this in who they chose to work with, as they could not choose the teams, and their teams were quite small. Of the competencies that were suited to this context, *Flexibility* and *Self-awareness* were the most apparent in the data. The contribution to our understanding of *Self-awareness* is that where the students were aware of the impact of their behaviour, they were more conscious of their actions, and more likely to show evidence of learning from these incidents. *Flexibility* showed that Carl needed to be flexible when Hitchens presented a different way to work on the model development, but that the contextual circumstances prevented him from being so. This suggests that in order for people to become more flexible, students must learn how to create a culture within their teams that allows for flexibility.

## **6.6 Interrelatedness of the Competencies**

One aspect of the GPCF that has become apparent through the analysis of the two cases, and from the cross-case analysis is that the competencies detailed in the framework co-occur in intercultural situations. So, for example, *Active listening* and *Building of Shared Knowledge and Trust* were linked when it came to the students understanding each other's work. Nathan and Devina's low ability in *Active listening* meant that they also struggled to achieve mutual understanding (an aspect of Building shared knowledge and mutual trust) on various aspects of the project. Two other competencies that were linked were *Stylistic flexibility* and *Language proficiency*, where the boundary for Hitchens between being at a high enough level in the language and being able to adjust his language appropriately co-occurred. These instances, amongst many others, of the interrelation between the different competencies have several implications for educators and for students. The first is that the competencies cannot be taught in isolation from one another. If students are to learn these competencies, then it will need to be part of a more holistic approach to learning intercultural competencies. The second is that the competencies can overlap, and distinguishing between such competencies as *Language Proficiency* and *Stylistic Flexibility* can be difficult. A third aspect is the link between the competencies and the context. The Case Study chapters showed that the students who struggled with the context's academic subject matter and the language, were also the ones who showed the least evidence of development of intercultural

competencies. This also needs to be considered when designing curricula to develop intercultural competencies.

## 6.7 Conclusions

This cross-case analysis has shown that both forms of participation (see section 2.2.5) are essential for reflection to take place on group work experiences, but that reflection does not necessarily lead to the development of ICs, because of various contextual factors and a lack of recourse to IC development frameworks. The focus on assessing outcome over process can also have an impact on IC development as the student may be more focused on the outcome of the project than the team ethos. The main competency cluster that was relevant (both in display of the competencies, and in terms of development) was the *Communication* cluster. In this cluster there was the initial threshold competency of *English language proficiency*, which then served as a gateway for some students in whether or not they developed other competencies. Also, within this cluster was the new aspect *Building Shared Knowledge and Mutual Trust, Disclosure/non-disclosure*. In the relationships cluster there were two main competencies that were relevant to the group projects: *Interpersonal Attentiveness* and the *Building of Rapport*. However, although the students displayed these competencies, there was a lack of development on their parts in understanding their importance how to develop them. The clusters *Knowledge and ideas* and *Personal qualities and dispositions* each had one competence that was displayed and, to some extent, developed through the project. In these instances (and the instances from the other clusters) the development was related (although not always) to the level of challenge that the students encountered during different instances. Development was also subjective; so, the participants did not all develop to the same extent, although they were participating in the same events.

## 7 Discussion Chapter

There are four main parts to this chapter. In the first part I restate the research questions, and explain where they will be answered, or if they have been already. Then I will answer the first research question in the second part, which relates to how students behave during multicultural teamwork projects. In the third part of this chapter I will answer the second research question, which pertains to IC development from teamwork experiences. In the fourth part of this chapter I will consider the limitations of this research. This chapter will place the results and analyses of the preceding chapters into the wider context of research into developing intercultural competencies in students through teamwork, both in terms of the practical implications for teaching, and the theoretical implications for future research in this area. It will suggest where this research makes contributions to our understanding of the development of intercultural competencies and our understanding of student group work processes.

### 7.1 Research aims and Research Questions

There were two aims to my research. The first was to better understand the processes that student teams undergo through the completion of a group project. The second aim to examine students' development of intercultural competence from their group work experiences. This led to two research questions. The first question (below) was very open because previous research in this area had relied on self-reports and had not explored the actual processes of group work.

RQ1. How do students act in multicultural teams when given a project to complete?

It also had the following sub-questions:

RQ1a. What tasks did the team have to handle and what issues arose in relation to them?

RQ1b. In what ways and to what extent were the observed experiences of students similar to those in self-reporting research?

The second research question explored the link between the experiences of a teamwork project and the development of ICs. This was the main focus of the case study chapters

and will be discussed in depth in relation to the suitability and possible redevelopment of the GPCF to suit this context.

RQ2. In what ways does teamwork promote the development of intercultural competence?

With the sub-questions:

RQ2a. What intercultural competencies emerge as important in multicultural teamwork?

RQ2b. What elements of teamwork projects can encourage the development of IC competence?

RQ2c. How, and to what extent, are the GCPF and Taylor's developmental IC model valuable frameworks for exploring this? Are there other aspects of learning IC not covered by these models?

In the following sections I consider the findings from my data in relation to these questions.

## **7.2 RQ1: Students' Behaviour in Multicultural Projects**

This section answers the first research question, considering how students act in teamwork projects, and what can affect their behaviour. The data from the previous chapters will be compared to the wider research in this area. This will be divided into the same three sections as the Literature Review chapter:

1. Attitudes and preconceived notions towards group work
2. Research on what happens during group projects
3. Research that highlights other contextual factors

In each of these sections I will compare my findings with other research. I will discuss why this is or may be the case. Then I will consider the pedagogic or research implications of these findings.

### **7.2.1 Attitudes and Preconceived Notions towards Group Work**

In the literature on students working in multicultural teams, there were three key themes within the research that were also found in my data. These are what students think after group work project, how personal qualities and dispositions affect group

work, and preferences regarding working in teams that are more or less homogeneous. These themes are considered below. However, personal qualities and dispositions, since they relate to the GPCF, will be discussed in section 7.3.3.

#### **7.2.1.1 *What students think after group work projects***

It is a relatively common research method in group work research to measure student perceptions of group work before and after a particular project, in order to see if there has been any development in how the students perceive working in multicultural teams. Both Volet and Ang (1998) and Turner (2009) found that students' views towards working in multicultural teams did not seem to change after group work experiences (i.e. they remained either negative, neutral or positive). In contrast to this, my research found that some of the students did change their views towards teamwork; however, it depended on the extent of the challenges that they faced,<sup>255</sup> their surface levels of participation,<sup>256</sup> and how much they were able to reflect on their experiences (see Cross-Case Analysis, section 6.1). These contextual factors should be considered when surveying students about the extent to which their views changed. The pedagogic implication of the previous research combined with this research is that students should be provided with the opportunity to work on various teamwork projects during the course of their degree, because the contextual factors above could limit learning from just one teamwork project experience. It also shows the importance of encouraging reflection on teamwork processes and making students aware of the different factors that could affect their participation.

#### **7.2.1.2 *Effect of personal qualities and dispositions on group work***

In their research Woods et al. (2011) found that personal skills and dispositions were rated as important by students when it came to working in multicultural teams. My data agrees with this. The students in both teams valued the skills and dispositions of their team members, such as Carl valuing Edward's ability to mediate between him and Hitchens,<sup>257</sup> and Chahel valuing Lazar and Paul's academic abilities during the project.<sup>258</sup> Neither of these skills are specifically intercultural, although Edward's ability to mediate

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<sup>255</sup> See Incident Two, Case Study One, section 4.3.2

<sup>256</sup> Compare Nathan's learning with Hitchens' or Carl's

<sup>257</sup> Carl Interview, 24:16 – 24:39

<sup>258</sup> Chahel Interview, 46:20 – 46:54

did take place during a misunderstanding that was influenced by intercultural communication issues.<sup>259</sup> One skill that in previous research is positively linked with working well in multicultural teams is multilingualism (Summers & Volet, 2008; Sweeney et al., 2008). My data does not support this finding, or at least paints a more complex picture. In Case Study Two there were two multi-linguals – Lazar and Devina. Lazar was in fact less tolerant of lower-level L2 speakers (Devina),<sup>260</sup> in spite of being an L2 speaker himself, whereas neither Chahel nor Paul expressed any frustration towards Devina for her lower language proficiency. In Case Study One, Carl was a native, monolingual speaker, yet he was able to approach Nathan and offer him assistance with his language.<sup>261</sup> However, he was unable to accept that Hitchens' language difficulties were a sincere reason for misunderstanding between the two of them.<sup>262</sup> In that same group, Hitchens, a multilingual himself, felt that he was perhaps a "quite destructive" group member.<sup>263</sup> It is understandable why multilingualism is positively associated with group work, because it suggests intercultural experience, and a development of empathy for other non-native speakers (Dewaele & Wei, 2012). However, in the data presented here this was not the case. This suggests that it is not multilingualism itself, but the skills associated with it that are important for group work. Those skills could be developed without being multilingual, or they could also be less developed in some multi-linguals compared to some native speakers.

A further finding from my data was that the students were unaware of which skills they needed to develop in order to improve their teamwork performance. Other research, which asked students which skills they value, does not shine a light on students' awareness of potential areas to improve. This is problematic, but also a very important finding. In order to help students, improve their teamwork skills, they need to learn about how to learn.

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<sup>259</sup> See Incident Two, Case Study One, section 4.3.2

<sup>260</sup> Lazar Interview, 21:38 – 22:36

<sup>261</sup> See Incident Three, Case Study One, section 4.3.3

<sup>262</sup> Carl Interview, 45:01 – 45:24

<sup>263</sup> Hitchens Interview, 26:03 – 26:09

### **7.2.1.3 Preferences for working in teams that are more or less diverse**

Much research has highlighted the fact that students tend to prefer working with other students of a similar cultural background to their own (De Vita, 2002; Dunne, 2013; Harrison & Peacock, 2009; Turner, 2009). This can be due to either concerns over their grade (Strauss & U, 2007), or unwillingness to cross cultural boundaries (Brown, 2009; Volet & Ang, 1998). In the context of my study, the students did not have a choice over the teams they were put in, so their preferences were not evident in team member selection. Some students did raise concerns about working with students of lower abilities,<sup>264</sup> or from different backgrounds.<sup>265</sup> However, Edward is an example of a student who accepted the difficulties of working in a multicultural team, and commented that the mixed team made the project more difficult, but better overall.<sup>266</sup> My research also challenges the simplicity of stating that students prefer to work in more culturally homogenous teams in the sense that 'culture' is problematised by Paul's role in Case Study Two. Although he was from the same national background as Chahel, he was from a different disciplinary background, which created its own problems for the team. However, the other team members were not unwilling to cross cultural boundaries in this sense, which is useful, because it demonstrated IC development in a broader sense than negotiating differences between national cultures. Also, in Case Study One, there was the issue of Carl refusing to accept that there was a cultural boundary between how he spoke English, and how Hitchens spoke English. The implication of this is that research should not only look at the cultural boundaries that the students are aware of, but also of those that they may not accept, or even conceive of, as cultural differences.

### **7.2.2 RQ1b: In what ways and to what extent were the observed experiences of students similar to those in self-reporting research?**

One important research finding by Schnurr and Zayts (2013) is that self-reports can contradict process data. Contradiction is quite a strong phrasing, because in reality people have selective memories of events, and their perceptions may not match the reality. Also, students may not report everything that is salient to understanding how students work in multicultural teams. Comparing what is in self-report research with

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<sup>264</sup> Lazar Interview, 21:38 – 22:36

<sup>265</sup> Edward Interview, 31:22 – 32:56

<sup>266</sup> Edward Interview, 46:50 – 47:13

process data, such as the research undertaken in this thesis, is important to improve our understanding of teamwork processes when students work in multicultural teams.

#### **7.2.2.1 Free-riding**

One of the common themes in student group work research is free-riding (Adair, 2009; Popov et al., 2012). In my data however, free-riding was not an issue for the students, none of whom disclosed dissatisfaction with other students due to lack of contribution, except Lazar. Indeed, there were instances to the contrary, where students were accepting of other students not spending time on the project if they had other priorities.<sup>267</sup> One theme from this research that could be linked to free-riding is the different surface participation levels seen in the inductive coding data, and the analysis of that in the different incidents. One of the findings from this is that participation (or lack of) is more complex than the idea that students were unwilling to work. In my data, low surface-level participation was related more to academic and linguistic difficulties than free-riding. It could be that the concept of free-riding masks other difficulties that the students may encounter with the project, or in working with other team members, even though it is understood as a desire not to work. To illustrate this, consider the example of Devina in Incident Two, where she struggled to understand what was being demanded of her, and then the others dismissed the work she produced. She commented afterwards that she felt distanced from the group decisions.<sup>268</sup> This, along with her academic and linguistic difficulties, could have been the main factor in her contributing less to the task discussion than the other group members. The process data showed that this is not free-riding, but it could have been interpreted as such by the others, especially as Devina was reluctant to disclose her sentiments of feeling apart, and the academic and linguistic difficulties she faced in the project. The implication of this is that lack of participation in group work projects is multifaceted, and that how students are prepared to think about low surface participation levels should incorporate raising awareness of the complex factors that can affect it.

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<sup>267</sup> Carl, Facebook reply & Edward Facebook reply, 29/01/15

<sup>268</sup> Devina Interview, 17:13 – 17:19



### **7.2.2.2 English language Skills**

English language proficiency is an important aspect of working in multicultural teams. This will be discussed in greater depth as it relates to intercultural competence in section 7.3.3. In the self-report research it has been found that native speaker students demonstrate “a lack of goodwill” towards L2 speakers (Turner, 2009; Volet & Ang, 1998). In my research, as discussed in section 7.2.1.2, it was an L2 speaker who demonstrated a lack of goodwill towards another L2 speaker. Also, in the case of Carl, he demonstrated goodwill when the linguistic difficulties of an L2 speaker were more obvious, yet he found it difficult to countenance linguistic difficulties as a factor in miscommunication with a more fluent-seeming L2 speaker. So clearly in this instance there was a student who was tolerant of clear challenges that an L2 speaker faced, but not of the subtler effects that being an L2 speaker could have on their communication. The implication of this for multicultural teamwork projects is that students need to be made aware of the complexities that language can play in understanding; that even if a student seems fluent, there may still be misunderstandings rooted in cultural and linguistic differences.

Another finding related to English language is from Popov et al. (2012), who found that weaker English language skills led to some students being excluded from group work processes. My data supports this, but it also shines light on the strategies L2 students used that exacerbated their exclusion. For both Devina and Nathan, their strategy for when they did not understand the group conversation was to stay silent until the meaning became clear.<sup>269</sup> Devina did feel excluded from group processes, but her strategy for comprehending the conversation excluded her further because it limited her surface-level participation (staying silent to understand rather than taking part and asking when aspects were unclear). It also makes her reason for lower participation opaque to the other students because it was unclear whether she understood or not. She might have understood the conversation but have had nothing to say, or if she might not have understood and so could say nothing. In this instance the self-report data agrees that the students may feel excluded, but it does not shine a light on why it happens. My data shows why this may be the case (i.e. it may be due to the need to develop active listening skills, or due to feelings of exclusion from certain aspects of the project) and

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<sup>269</sup> Devina Interview, 1:12 – 1:38 & Nathan Interview, 43:25 – 43:57

carries implications as to what students can be taught or made aware of, so as to reduce exclusionary processes in teamwork projects due to linguistic difficulties.

### **7.2.2.3 Dominant group members and communication**

There has not been much research into understanding and sharing group goals, although Burdett (2014) recommend that students create group goals at the beginning of the project in order to facilitate the group process, and to limit domination by one group member. In my research the students were fairly clear on their project goals. However, they encountered issues in disclosing and agreeing upon the process of reaching those goals. This research suggests that simply agreeing upon goals is not enough, and that the students also need to agree on the procedure they will take in order to reach those goals. This requires more planning discussion in the initial stages (something that may be difficult in a context with tight deadlines), and also more awareness of one's own procedural preferences, including how to negotiate with those whose preferences differ.

Another finding from self-report data is that students complained about dominant group members once the project was complete (Turner, 2009). However, as was discussed in the sub-section above, the strategies that the less active group members used (i.e. remaining silent) did not facilitate their inclusion in group processes, nor did it discourage the dominant students from being less dominant. Additional complexity to this finding comes from the multifaceted reasons why some students may be more dominant than others, such as their higher academic ability,<sup>270</sup> linguistic ability,<sup>271</sup> or preparedness for the discussion in meetings.<sup>272</sup> Each of these needs to be considered within the theme of dominant participants in future student teamwork project research in order to better understand this phenomenon. Students also need to be prepared for these factors before embarking on teamwork projects, to ensure they perceive dominance of group conversations and tasks as a series of processes that they may be able to influence, and not simply due to personality differences.

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<sup>270</sup> See Incident Three, Case Study Two, section 5.3.2

<sup>271</sup> See Incident Three, Case Study Two, section 5.3.2

<sup>272</sup> See Incident One, Case Study One, section 4.3.1

A final theme from the self-report research from Woods et al. (2011) is the suggestion that East-Asian students have difficulty managing conflict as it arises in Western cultural contexts. This is problematic in the first instance because one's perception of what "conflict" is could be dependent on cultural background, although the participants in the "conflict" may not be aware of this. In my research data neither of the students from East-Asia admitted to perceiving any situations that they directly participated in as conflict. Moreover, it is clear from Incidents One and Two from the Case Study One that it was also Western students who had difficulty in conflict situations. Carl and Hitchens struggled to manage conflict, and Carl admitted to being unsure as to how to disagree with Hitchens.<sup>273</sup> So it is not exclusively East-Asian students who struggle with conflict, but potentially students from any background. This suggests that in terms of teaching, all students should be taught more about managing conflict in teams, and also to discuss what they define as conflict. In terms of research, it is clear that conflict needs to be conceptualised more clearly, and that the effects of conflict should not be explored solely as a cause of lower surface participation levels, but for its other effects on teamwork processes.

#### ***7.2.2.4 Opposing negative perceptions in intercultural group work***

Turner (2009) quite usefully highlights the opposing negative perceptions shared between home and international students when working in multicultural teams (see section 2.1.2.4 in the Literature Review chapter). Many of these misconceptions have already been discussed above, and some will be discussed further below. It is important to note here, however, that in the research in this thesis there were instances of mutual misconceptions between students of the same national culture. In Case Study Two, Incident One (section 5.3.1), Paul and Chahel had different orientations towards how to best decide on a variable for the statistical model (achieving consensus vs. best idea). Paul and Chahel were from different disciplinary cultures, but there is no evidence that this was what motivated their differing process orientations. This suggests that mutual misconceptions are not the sole province of home and international students; they can also occur between students the same or similar national cultural background. One possible influence is how students are primed to think about working in multicultural teams. In Turner's research the students were given some teaching about intercultural

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<sup>273</sup> Carl Interview, 5:05 – 7:15

communication. Due to the historical focus on national categories as a proxy for culture, it could be that students were primed to view their differences according to these categories. In my data, however, the students were not primed to think according to such categories (or indeed any at all), so the mutual misconceptions were evident even between more culturally homogeneous participants. The implications of this are twofold: the first is how students are taught about culture before embarking on teamwork projects needs to be considered, and the second the importance of using process data to understand the complexity of group processes needs to be recognised. These reveal more than the self-reports about the misconceptions different students may share during teamwork projects found in previous research.

### **7.2.3 Other Contextual Factors in Group Work Projects**

In this section the other contextual factors that could influence group work projects will be considered. These will include multi-level diversity, student life outside of the teamwork project, assessment and institutional support.

#### **7.2.3.1 *Multi-level diversity***

Volet and Ang (1998) and Montgomery (2009) found in their research that misunderstandings when working on group work projects could be based not only on national culture differences, but also due to students coming from different disciplinary cultures. My own research agrees with this finding in the instance of Paul, who usually studied under a slightly different discipline to the other students (pure maths instead of statistics). He encountered challenges in expressing himself in ways that enabled the other students to understand his points.<sup>274</sup> This difference may not be relevant to contexts where the students are from the same disciplinary culture, but this type of collaboration does encourage students to think differently about their own discipline compared to others. It also could prepare them for more real-world applications, where they may work in teams with people from different professional backgrounds. As such, it is important to prepare students for these types of cultural differences. In terms of research, these findings to some extent further problematise the concept of culture in intercultural research, but also highlight where these cultural differences may be salient to group discussions.

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<sup>274</sup> See Incident Two, Case Study Two, section 5.3.2

### **7.2.3.2 *Students' lives outside of the group work project***

D'Alessandro and Volet (2012) found that factors outside of a group work project could have an influence in individual contribution rates. Their work highlighted part time work in particular as a factor influencing student commitment to their scholastic work, specifically teamwork projects. My own research did not find this specifically, but there was evidence that the lives of students outside of the group work project had a strong influence on their behaviour during the project. An example of this is Case Study One (Incident Two, section 4.3.2) where Carl's night with his friends was interrupted by Hitchens on Facebook having an influence on how he responded to Hitchens' posts.<sup>275</sup> At the same time, Nathan was also out with friends, which affected his participation differently, in that he did not participate in the online discussion at all.<sup>276</sup> Working at odd hours, and having contextual circumstances that may affect your participation are important aspects to be aware of when working in a group project, both in terms of research, and for preparing students for group work projects. How working in a teamwork project in research is conceptualised is important. It should not focus solely on the work itself, but the wider context of the students' lives. At the same time, working remotely on a team project is an important and relatively new skill. It may be difficult to simulate in a campus environment, but it seems that the students (at least from this research) will do this anyway, so some instruction in this could be useful for students.

### **7.2.3.3 *Institutional support***

Several researchers have called for students to be taught about teamwork prior to embarking on teamwork projects (De Hei et al., 2014; Orr, 2010; Snyder, 2008). The implications of the discussion of the various aspects of teamwork above support this, as will the discussion of intercultural competencies below. However, another aspect of institutional support that requires further research and pedagogic focus is the use of reflection in order to turn the students' teamwork experiences into learning (Boud et al., 1985; Reid & Garson, 2016). Reflection is a complex process (see Methodology chapter, section 3.2.4.1), and the findings from my research indicate that both the level of reflection and the extent of learning when given the opportunity to reflect are subjective to the context and the participants. It is difficult to control the specific learning that

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<sup>275</sup> Carl interview, 28:58 – 29:42

<sup>276</sup> Nathan Interview, 06:03 – 07:02

students gain from working in multicultural teams, yet it is possible to direct students' focus towards certain aspects of teamwork. Institutional support also needs to include providing students with multiple intercultural teamwork experiences, so as to maximise their potential learning of intercultural competencies related to teamwork.

#### ***7.2.3.4 Conclusion to findings for first research question***

Table 67 below summarises the findings from the first research question. As can be seen, there are aspects in which the research undertaken here has implications that are both theoretical and pedagogic for students undertaking team projects in multicultural student teams.

**Table 67 - Findings from RQ1.b**

Aspect of research into working in multicultural student teams		My Findings	Theoretical Contribution	Pedagogic Implications
Attitudes and preconceived notions towards group work	Skills and dispositions	<ul style="list-style-type: none"> <li>- Skills and Dispositions are important, but multilingualism is not necessarily so.</li> <li>- Students were unaware of which skills they needed to develop.</li> </ul>	Question how multilingualism benefits teamwork	Students need to be made aware of what skills they need to develop for working in multicultural teams.
	Working in Diverse teams	<ul style="list-style-type: none"> <li>- Students raised concerns about working with students with lower academic abilities.</li> <li>- But other students found working in diverse teams positive.</li> <li>- One student could not accept that language caused misunderstanding.</li> </ul>	In research and teaching culture needs to be problematized beyond national culture, as disciplinary culture also had an impact.	There may be cultural differences that students are not aware of (such as impact of language) and need to be taught.
Research on what happens during group projects	Free-riding	<ul style="list-style-type: none"> <li>- Free-riding was not a significant issue for students.</li> <li>- Students had different surface participation levels for other reasons.</li> <li>- Low participation in teamwork projects is a multifaceted issue.</li> </ul>	Researchers need to look into free-riding in more depth for other potential contextual factors that can limit surface-level participation.	We need to prepare students to think about the complex factors that can influence surface participation levels.
	English Language Skills	<ul style="list-style-type: none"> <li>- English language proficiency can have a negative impact on participation.</li> <li>- Some students showed lack of goodwill towards L2 speakers</li> </ul>	Language proficiency should be investigated with other factors (e.g. academic ability) to influence impact on participation.	Students can should be made aware of exclusionary processes that can come about it they do not take language ability into account.
	Unclear Goals and dominant	<ul style="list-style-type: none"> <li>- Having shared goal was not a problem; it was different process orientation towards goal.</li> </ul>	Research into teamwork needs to	Students should be made aware of importance of work preferences,

	group members	<ul style="list-style-type: none"> <li>- Quieter group members did not possess skills to contribute more (e.g. active listening)</li> <li>- Students struggled with conflict regardless of background</li> </ul>	consider the complexities of participation, and investigate how students conceptualise, and try to manage conflict.	and of communication skills to enable more equal surface-level participation in discussion. Also given tools on how to understand and manage conflict.
	Opposing Negative Viewpoints	- These are not limited to home and international student dichotomy; can also be disciplinary.	Researchers should use process data to investigate further how misconceptions students may share during teamwork projects.	How students are taught to conceptualise culture can be important for how they perceive intercultural teamwork.
Students thoughts after group work projects		- Some students changed their views depending on the challenges they faced, their participation levels in processes and during incidents, and ability to reflect on experiences	Contextual factors of group work experiences should be considered when researching students in this context.	Students should be provided with multiple opportunities to experience working in teams.
Research into other factors that could influence group work	Multilevel diversity	- Different types of cultural differences can impact student teamwork.	Researchers should problematize their notions of culture in this type of research.	Same as above (Opposing Negative Viewpoints)
	Students' lives outside of the group work project	- Students' lives outside of their projects influenced their communication with team members.	Research in this area should also look into the wider context of students' lives.	Instruction in how other factors outside of the project can influence behaviour in team, and advice of how to disclose this.
	Institutional Support	- Students did not receive much institutional support in their projects.	N/A	Should be more focus in supporting and encouraging reflection on teamwork experiences.



### **7.3 Results for Research Question 2: In what ways does teamwork promote the development of intercultural competence?**

This section of the discussion chapter will focus on the results for the second research question, which focuses on the development of intercultural competencies as a result of the teamwork experience, and the suitability of the GPCF as a framework for measuring the development of IC in this context. As was discussed in the Research Context (see section 1.1 of the Introduction chapter), intercultural teamwork assignments have the aim of encouraging students to develop their collaborative skills for working in multicultural teams. In the preceding chapters the development of IC was analysed in both of the cases using the GPCF and Taylor's model, and then the cases were compared with each other. The subsections below will look at the different aspects of the development of IC and try to answer the subsidiary research questions below and consider the research and pedagogic implications of these answers.

#### **7.3.1 What Elements of Teamwork Projects can Encourage the Development of IC?**

From the data there were various different factors that encouraged the development of IC in the different students. The first is that the students were given the opportunity to reflect on various incidents during their teamwork projects. There are two parts to this, one being the identification of incidents, and the other being the opportunity to reflect. Researchers have found that incidents can accelerate the process of learning (Cope & Watts, 2000), but that the interpretation of the significance of the event can influence whether learning takes place (Tripp, 1993). Reflection, according to Boud et al. (1985) turns experience into learning, so not only is the identification of an incident as meaningful required to encourage the development of ICs; but also that the students take the time to reflect on that incident. My own research tends to support this proposition in that the students who saw incidents as meaningful were more likely to reflect on them and to develop IC from this (see Cross-Case Analysis chapter, section 6.1). An example of this is Case Study One (Incident Two, section 4.3.1), where both Carl and Hitchens gave evidence of learning from reflecting on the challenges they faced. Both of these students found the incident meaningful, whereas Nathan, who was also in the group, found it less meaningful, and there was less evidence of developing IC when he reflected on the incident. One limitation of these incidents that is also important to

consider is that the participants of an incident may have learnt more than they can relate to others (Cope & Watts, 2000). So, whilst it is possible to identify some development, there may be more that is unsaid. An example of this is from Paul, in which there was evidence of development in the process data (development from Incident One to Incident Five, sections 5.3.1 & 5.3.5), but not declared in the interview.

There was also another limitation that was related to the process of encountering an incident and then reflecting, which is whether or not the students had a pre-existing conceptualisation of different aspects of intercultural communication. For example, Carl did not understand that his misunderstanding with Hitchens during the conflict could be related to Hitchens' language proficiency. He did not have the prior notion that one can appear fluent in a language, but still have influences on how you express yourself due to the influence of your L1.<sup>277</sup> In this sense IC development is contingent to some extent on the frameworks that students have already been exposed to for learning IC.

This relates to another factor that can encourage the development of IC for students working in intercultural teamwork projects – institutional support. Multiple researchers in other contexts have found that the development of IC is limited by institutional support (Koskinen, 2005; Koskinen & Tossavainen, 2003; Lázár, 2015). In the research by Lázár (2015), it was found that students showed more evidence of IC development once they were taught specific communication patterns to help facilitate their discussions with people from different cultures. Similarly, the research by Koskinen (2005) and Koskinen and Tossavainen (2003) found that the development of IC in nurses who were doing cross-cultural exchanges was limited by the extent to which the hosting and sending institutions encouraged IC development. Clearly in order to encourage the development of IC in students, there needs to be institutional support for it to happen (see also section 7.2.3.3). It seems from the existing IC research, this is most effective when it teaches specific aspects of IC to the students.

#### **7.3.1.1 *Other aspects of IC development not covered by the Taylor***

One clear aspect from the data is that development can be triggered by incidents, and that reflection helps students to articulate their learning, and attribute meaning to

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<sup>277</sup> See Incident Two, Case Study One, section 4.3.2

incidents. Although Bennett (1993) theorises that facilitation is important in order to help students develop, what form this facilitation comes in is unclear. Simply providing a context for learning (e.g. a teamwork project) is not enough; however, if facilitation is too intrusive it could interfere with the students' work on the project itself, so it needs to be balanced. As discussed above, this needs to include pre-teaching of IC concepts that can have an influence on teamwork projects, and structured reflection to help students think about their learning experiences according to these different concepts.

### **7.3.2 What ICs Emerge as Important in Intercultural Teamwork?**

With the aid of the GPCF, several competencies emerged as important from the students' experiences of working in multicultural teams (as seen in the previous three chapters).

These are listed here:

- Goal Orientation
- Language proficiency
- Language Adjustment, active listening & attuning
- Building shared knowledge and mutual trust (specifically disclosure/non-disclosure)
- Stylistic flexibility
- Interpersonal attentiveness
- Self-awareness
- Flexibility
- Acceptance

How these competencies were important, the extent to which their conceptualisations in the GPCF is different to how they emerged in this data, and the implications of this will be discussed in the subsection below.

### **7.3.3 How, and to what extent, is the GPCF a valuable framework for exploring the development of IC? Are there other aspects of learning IC not covered by the GPCF?**

These sub-questions demand a detailed response from the data analysis. For the first question I will look at the application of the GPCF to the data within the case studies, then for the second question I refer to the wider IC literature, as well as to my own data, to better understand what aspects of IC learning were not covered by the GPCF.

The GPCF provided useful conceptualisations of the different competencies that the students employed during their projects. Not all of the competencies from the GPCF

were found to be relevant to the context of working in multicultural student teams. Also, there were some competencies that emerged from the data that were either not in the GPCF, or that added to our understanding of some of the competencies. The sections below will consider the competencies according to each cluster and discuss how they were relevant for our understanding of the use and development of IC in this context, and the implications of this.

#### **7.3.3.1 Knowledge and ideas cluster**

Within this cluster, the most relevant competence to the data was Goal Orientation – interest and awareness of others’ goals in the project. In the GPCF the main focus of goal orientation is negotiating between one’s own goals and the goals of other parties, as well as an awareness of issues that need to be negotiated when there are parties with differing goal orientations. In the context of a student teamwork project, the goal orientation was more straightforward because the lecturer set the goal for the students (to create a statistical model, write a report and presentation). It is possible that the students may have differing goals in terms of what they considered acceptable as a final outcome of the project concerning assessment (e.g. some students may be aiming for a higher grade than others), however, this was not evident in the data. What was evident in the data was that within the competence of goal orientation there was also the ability to be able to surface and negotiate different *procedural* orientations towards achieving the goal (see also section 7.2.2.3). In both groups the students encountered instances where there was a misunderstanding in how they thought they would work on different aspects of the project, even though they had shared goals.<sup>278</sup> So whilst Goal Orientation was a valuable competence from the GPCF for this context, the data shows that it needs to be adapted to relate not only to *what* the goals are in the collaboration, but to *how* the group members would prefer to achieve them.

#### **7.3.3.2 Communication cluster**

There were several competencies within the Communication Cluster that were relevant to this context. However, the first competence that was relevant to communication was not strictly speaking an intercultural competence. It was language proficiency (specifically English Language proficiency). In both groups there were students whose

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<sup>278</sup> See Cross-Case Analysis chapter, Goal Orientation, section 6.2.1

surface-level participation in the group work processes was adversely affected by their lower levels of English language proficiency. Nathan and Devina both struggled to understand all that was being discussed by the other group members, which meant they also felt they could not contribute as much to the discussions.

Related to language proficiency were other intercultural communicative competencies that were relevant to almost all of the participants. Language Adjustment, Active listening & Attuning, which concern the ability to achieve mutual understanding, were all relevant to the students' experiences during the project.<sup>279</sup> The evidence from the data is that the employment and development of these competencies did not differ greatly from how they are conceptualised in the GPCF. That said, even though these competencies were relevant, the students did not possess an understanding of these competencies, nor how strategies from these competencies could have aided them in achieving mutual understanding throughout the project. An example of this is Devina, who decided to stay silent when she could not understand the content of a discussion, instead of checking the meaning of important words and phrases (this also agrees with Bennett, 1993). These competencies were just as important to native speakers as the L2 speakers, since the onus is also on native speakers to check if all the other group members understand the content of the discussion. So, the main pedagogic implication of this is that the students need to be taught about these communicative competencies and the strategies they can use when working in multicultural teams in order to achieve mutual understanding.

Building shared knowledge and mutual trust was another competence that was important to the teamwork projects. There was a lot of knowledge and information that the students had to share when developing the model, as well as sharing their opinions of the knowledge (e.g. which variables were more appropriate to select for the final model). From the Cross-Case Analysis chapter it is clear that there was another facet to this competence that emerged from the data, Disclosure/non-disclosure. This related to the students' decisions on what to disclose and not to disclose at different stages of the project. These decisions had an impact on subsequent disagreements,<sup>280</sup> as the students

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<sup>279</sup> See Cross-Case Analysis chapter, Communication Cluster, section 6.3

<sup>280</sup> See Incident One & Incident Two, Case Study One, sections 4.3.1 & 4.3.2

had not disclosed at an early enough stage their disagreement with certain aspects of the project. The building of shared knowledge and mutual trust relies on participants disclosing their intentions, and providing background information to their opinions in discussions (see Spencer-Oatey & Stadler, 2009). However, what also needs to be conceptualised for students is when to disclose or not to disclose your thoughts about different aspects of collaborative work. One of the benefits of the methodology used in this study is that it revealed that there were incidents where the students decided either to disclose or not to disclose their concerns to the other students about different aspects of their project. This shows that the use of stimulated reflection encouraged students to think about this, but it did not reach the point of them thinking in an abstract sense as to when to disclose or not to disclose. So, this research shines a light on this facet of building shared knowledge and mutual trust, but more research needs to be undertaken in order to develop our understanding of this further.

Stylistic flexibility is the final communicative competence that was relevant in the analysis of the two case studies. It concerns the ability to adjust one's style of speaking appropriately to the context. In this data it was apparent that stylistic flexibility was linked with language proficiency. For example, it is difficult to discern whether the troubles Hitchens encountered in communicating during Case Study One (Incident Two, section 4.3.2) were due to problems of language proficiency or lack of stylistic flexibility. There is an inherent link between the two, because presumably a higher level of language proficiency would also (although not definitely) be correlated with an ability to communicate in a range of styles, and with a broader communicative repertoire. However, this is not a definitive link; for example, Carl, a fluent native English speaker, also encountered challenges in adjusting his communicative style when he wanted to disagree with Hitchens over task allocation.<sup>281</sup> Similarly, in Case Study Two, Paul encountered problems in expressing his thoughts in a style that the other group members could understand due to coming from a different disciplinary background, even though he was also a native English speaker.<sup>282</sup> So, whilst there may be a link between language proficiency and stylistic flexibility, it is a competence that was relevant to all of the students ranging from how to disclose disagreement to how to

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<sup>281</sup> See Incident One, Case Study One, section 4.3.1

<sup>282</sup> See Incident Two, Case Study Two, section 5.3.2

adapt one's language so that it was more specific to the subject content. In a pedagogic sense, learning stylistic flexibility is therefore relevant to all students.

### **7.3.3.3 Relationships cluster**

Within the relationships cluster, the most relevant competence for the students, in terms of where there was some development, was Interpersonal attentiveness. Rapport Building was also relevant to their projects but with less evidence of development. The other competencies within this cluster were also relevant, but to a more limited extent in that the students did not show evidence of development, nor even a conceptual understanding of the importance of rapport in group work projects (with the exception of Chahel).<sup>283</sup> This is an interesting finding in itself, because whereas the participants did show some awareness of different communicative and knowledge competencies, when it came to rapport and relationships there was little evidence of learning, or even awareness of these types of competencies. In Case Study Two, this could be explained by the lack of incidents relating to rapport. However, in Case Study One each of the incidents included links to rapport, but the lessons that the students took from these incidents were more communicative than rapport-related. The theoretical implication of this is to investigate why a participant's reflections on rapport incidents are not immediately linked to rapport itself. There are two main pedagogic implications for this. The first is that students need to be made aware of the importance of developing rapport when working in teams. The second is that students need to be given time during group work projects to focus on building rapport. In the projects that have been researched here, the students had tight deadlines; so, focussing on the task took precedence over building rapport. However, Case Study One showed that the lack of rapport building early on exacerbated later disagreements.

### **7.3.3.4 Personal qualities and dispositions cluster**

Not all of the Personal Qualities and Dispositions from the GPCF were applicable or evident in the different incidents from the two case studies. The main three competencies that were present in the data were Self-awareness, Flexibility and Acceptance. Of these, Self-acceptance was the most commonly occurring competency as it occurred in both case studies and was applicable to multiple students. It was

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<sup>283</sup> Chahel Interview, 39:47 – 40:01

applicable to many incidents, but it was found in this study that self-awareness varied depending on the context and the extent to which the other students challenged their behaviour. For example, in Case Study Two (Incident One, section 5.3.1) Paul did not develop self-awareness of how he came across to Chahel because it was not challenged. In contrast, in Case Study One (Incident Two, section 4.3.2) Hitchens became aware of how his language choices could be perceived because Carl challenged him over it. Pointing out aspects of each other's behaviour does, it seems, make students more aware. However, there is a risk that this may damage rapport. A counter argument to this could be that students who are not aware of how they come across in intercultural situations could also damage rapport without intending to (as was seen in Case Study One, Incident Two, section 4.3.2). The theoretical implications of self-awareness from this data are clear: that more attention needs to be paid to the factors that could limit one's self-awareness. However, the pedagogic implications are less straightforward. Although it is important to make students more self-aware, it needs to be done with sensitivity, respecting the esteem of the student.

Flexibility and Acceptance were competencies that both groups also showed, although to a lesser extent. Students from both groups showed some learning of Flexibility and Acceptance, but measuring the extent to which they had learnt to be flexible towards, and accepting of, different communication and behaviour was difficult to obtain evidence for, except in the instance of Carl (see Case Study One, Incident Two, Section 4.3.2), who did not learn to be flexible and accepting towards Hitchens, but made himself appear so. This instance in itself shows that flexibility can appear outwardly in behaviour, but internally there instead be resistance or opposition. One can appear flexible (and accepting), but privately disagree with the behaviour of one's fellow teammates. This finding has thought-provoking implications for understanding the development of intercultural competence, and the question of whether external displays of intercultural competence reflect internal thought processes. Put another way, one can appear outwardly as interculturally competent, such as seeming flexible in way of thinking, but in fact only be utilising that competence to achieve a certain end. This may cause researchers to rethink the conceptualisation of a global mind-set and raise ethical questions about the instrumentalisation of different intercultural competencies. The pedagogic implication of this is that these competencies need to be taught in conjunction



with competencies that enable a better understanding of other aspects of intercultural communication. In the case of Carl, he feigned acceptance because he was not aware of the subtle differences that culture can have on communication, even if the interlocutor appears fluent.

#### **7.3.4 How, and to what extent, is the Taylor's model of intercultural competence development a valuable framework for exploring the development of IC? Are there other aspects of learning IC not covered by the Taylor?**

These sub-questions demand an evaluation of the usefulness of Taylor's model for developing intercultural competence. In the Literature Review chapter (section 2.2.2.4) I suggested several limitations to the model for this context. These, and others that emerged from the data, and their implications, will be discussed below.

There were aspects of Taylor's model that were useful for better understanding the development of IC in this context. During the analysis the usage of dissonance, cognitive orientation, and behavioural outcome according to the GPCF were informative to understanding the development of ICs from the different incidents. This enabled me to break down the responses to their different components, and also identify where there was reflection but not necessarily evidence of learning. This finding contradicts Taylor's initial theory, that the reflective orientation "represents deep critical thought in becoming interculturally competent" (Taylor, 1994b, p. 164). My data found that there was evidence of perspective transformation even when there was not deep critical thought. This suggests that whilst those who engage in reflection are more likely to show evidence of learning, it is not a prerequisite. It is also possible that reflection may take place without any outward display, which makes it difficult to analyse and (if one is an instructor) to assess.

Taylor (1994a, p. 396) stated that there were three stages to developing intercultural competencies:

1. Precondition to change/catalyst for change (readiness to learn and experience of cultural disequilibrium)
2. The process (affective response and critical reflection)

### 3. The outcome (behavioural changes/learning of intercultural competencies)

The data showed that some of these stages had more importance than others depending on the context and the individual. For example, Carl (Case Study One) engaged in much reflection (see Cross-Case Analysis, Section 6.1), but was not ready to learn because he was more concerned about the outcome of the project than the development of ICs.<sup>284</sup> As a result, he also displayed evidence of few behavioural changes, with the exception of self-awareness. In contrast, Paul (Case Study Two) showed less evidence of reflection, but more behavioural changes. It is also possible that he was more prepared to learn since he was the member of his team who initially volunteered for his team to participate in the study in order to get teamwork feedback. Part of the process outlined by Taylor above that had limitations in his own framework was the list of competencies (only three), which were clearly more contextually relevant to experiences abroad, and not the context of working in multicultural teams. This meant that the addition of the GPCF was required for a list of pertinent competencies.

One of the key points of Taylor's model is that one must be ready to learn. When Taylor proposed this, he was referring to an individual's attitude towards learning, but in this study, the readiness to learn was also dependant on the contextual circumstances, and whether they promoted learning. Even with a quite powerful reflective instrument (stimulated reflection), learning did not necessarily take place. Rosenberg et al. (2006) used stimulated recall in their research into IC development, and found similar results to my own, in that there was some evidence of development, but it was dependent on the individuals' responses to different incidents (see Cross-Case Analysis Chapter, Section 6.1), as well as the contextual circumstances of the incident that they had to recall. This indicates that reflection needs to be accompanied by a conceptual understanding of intercultural competence, so that the participants have a theoretical understanding through which they can attach meaning to in their experiences.

Another aspect of the development of IC that is important to consider from this research and is also recommended by Taylor (1994b) is the need for repeat experiences (with

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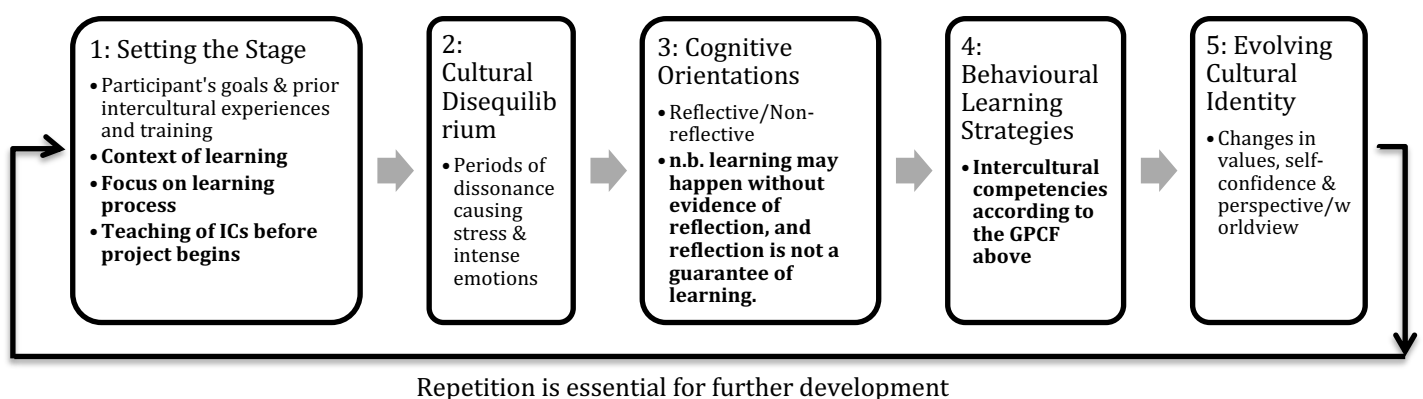
<sup>284</sup> Carl Interview, 57:15 – 58:41

reflection processes). In the research by Hammer (1984) it was found that an individual workshop was not sufficient to develop particular intercultural competencies. In my own research, one six-week intercultural teamwork project (where the focus is on outcome, not process) was also not enough to enable extensive learning of different intercultural competencies. This suggests that a focus on incorporating several experiences of working in multicultural teams is important in degree courses in order to provide students with sufficient opportunities to develop intercultural competencies and meet the demands of multicultural workplaces.

### 7.3.5 Conclusions to RQ2, and implications for changes to the GPCF and Taylor's model

From the analysis of the data, and this discussion it has become evident that the GPCF and Taylor's framework need to be adapted for both research and teaching in this context. These adaptations are summarised in Table 68, and Figure 20 below, with the added implications/competencies in bold. From this table it is possible to see the added competencies and aspects of individual competencies to consider for students who are embarking on teamwork projects. This figure shows the importance of institutional support, and repetition of experiences. The challenges that the students faced engendered some reflection and learning, but it was limited by inherent weaknesses of the context (lack of facilitation) and the subjectivity of the incidents chosen by the researcher. To remedy this, lecturers should encourage students to reflect on incidents of their own choosing, using the frameworks below.

**Figure 20 - Taylor's Intercultural Competence Development Model, adapted to this context based on the findings from this research**



**Table 68 – Implications for the GPCF (Spencer-Oatey & Stadler, 2009) for intercultural student teamwork projects**

		<u>Cluster Component Competencies most relevant to this context</u>	<u>Cluster Component Competencies less relevant to this context<sup>285</sup></u>
Competency Clusters	Knowledge and ideas	<ul style="list-style-type: none"> <li>• Goal orientation <ul style="list-style-type: none"> <li>○ <b>Raise awareness of Process Orientation, and preferences for reaching goals.</b></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Information gathering</li> <li>• New thinking</li> <li>• Synergistic solutions</li> </ul>
	Communication	<ul style="list-style-type: none"> <li>• Language Proficiency <ul style="list-style-type: none"> <li>○ <b>Include awareness of link with academic ability</b></li> </ul> </li> <li>• Active listening <ul style="list-style-type: none"> <li>○ <b>Importance of strategy for both native and L2 speakers (particularly for equal surface-level participation)</b></li> </ul> </li> <li>• Attuning</li> <li>• Building shared knowledge and mutual trust <ul style="list-style-type: none"> <li>○ <b>Disclosure</b></li> </ul> </li> <li>• Stylistic flexibility <ul style="list-style-type: none"> <li>○ <b>Include awareness of link with subject specific knowledge</b></li> <li>○ <b>Awareness of cultural differences even when seeming fluent in the target language</b></li> <li>○ <b>Ability to disagree</b></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Communication management</li> <li>• Language learning</li> </ul>
	Relationships	<ul style="list-style-type: none"> <li>• Rapport building <ul style="list-style-type: none"> <li>○ <b>Importance of building this in the early stages of project.</b></li> <li>○ <b>Raise awareness of how rapport is built</b></li> </ul> </li> <li>• Interpersonal attentiveness <ul style="list-style-type: none"> <li>○ <b>How Rapport Building and Interpersonal attentiveness are linked.</b></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Welcoming strangers</li> <li>• Sensitivity to social/professional context</li> </ul>
	Personal qualities and dispositions	<ul style="list-style-type: none"> <li>• Self-awareness <ul style="list-style-type: none"> <li>○ <b>Raise self-awareness of how students can be perceived, and of communication practices</b></li> </ul> </li> <li>• Acceptance <ul style="list-style-type: none"> <li>○ <b>Link this competence and Flexibility below with other competencies in this framework for teaching.</b></li> </ul> </li> <li>• Flexibility</li> </ul>	<ul style="list-style-type: none"> <li>• Spirit of adventure</li> <li>• Inner purpose</li> <li>• Coping</li> <li>• Resilience</li> </ul>

<sup>285</sup> Subsequent research may find them to be relevant

## 7.4 Limitations

There were several limitations to this study. Some of these are related to the qualitative nature of the research, but others are contextual limitations. These are listed below.

1. This research took place in a unique context, so the transferability of the conclusions to another HEI context could be limited.
2. There is subjectivity involved in qualitative research, particularly in the qualitative coding. It is possible that other researchers would interpret the data, and the incidents observed in the data differently. This could be particularly true of conclusions as the development of ICs that took place.
3. The participants were STEM students, and as such the findings may only be applicable to projects within STEM subjects, and possibly not to other academic disciplines such as the arts and social sciences. More research will need to be carried out in order to investigate this.
4. There was a predominance of male students in the groups. Perhaps more gender-balanced teams would have generated a different team dynamic to the ones seen here.
5. Even though process data was essential to the research aims, it involved direct observation, which could have had an impact on the behaviour of the students. Both group projects gained firsts, and it is possible that the effect of being observed doing their project caused them to be more task-focussed than is usual in student teamwork projects.
6. I was only able to have an incomplete picture of the students' interactions: I did not have access to their online communications until after their projects were complete, and I also did not have access to their individual private communication, only to their group page. Because of this, I was unable to see how Edward mediated between Carl and Hitchens (Case Study One, Incident Two, section 4.3.2). Also, I was unable to see the private communications in Case Study Two, for example if Lazar shared any frustrations with Chahel, or if Devina communicated more individually than on the group page.

7. There is the lack of before/after evaluation of IC development on the part of the participants, so it is difficult to use the findings to conceptualise development further than what was evident here.
8. Given the small sample size (only two case studies), it could be possible that other competencies from the GPCF are relevant to intercultural student group work but not evident in this data.
9. It is still unclear how to measure learning and development of intercultural competencies cumulatively (i.e. across the period of a three-year degree). This research looks at individual instances of development but measuring the cumulative development of IC will still be a concern to educators and researchers, particularly if they intend to embed more opportunities to undertake projects in multicultural teams in the curriculum.

## **7.5 Chapter Conclusion**

This chapter has reconsidered the research questions and provided answers to them based on the findings from the three preceding chapters. In the first part of this chapter I compared the findings with self-report research and summarised the results in Table 67. These results illuminated some aspects of the self-report research and provided recommendations both for researchers and practitioners looking at this context. In the second part of this chapter I considered how the findings of this research informed our understanding of the development of intercultural competencies and then (in light of these findings) how the GPCF could be adapted as a framework for this context (see Table 68). Finally, I listed some of the limitations of this research, which could have an impact on its applicability to other HEI contexts.

## **8 Thesis Conclusion**

This chapter begins by restating the aims of this research and the key features of the study. It then presents a summary of the main findings and evaluates the contribution of the study followed by a consideration of implications for teachers and HEIs, and recommendations for future research.

### **8.1 Restatement of Aims**

The initial objective of this study was to observe and research student teamwork processes as they undertake projects in multicultural teams. There were then two main aims. The first was to understand, through analysing their teamwork processes, how students' intercultural competencies are developed in such teamwork projects. The second was to investigate the extent to which students' ICs were developed as evidenced by the extent to which they were able to reflect on comment meaningfully on their performance upon reviewing different incidents. The analysis of this development was guided by Taylor's Intercultural Competence Development Model (Taylor, 1994a). And the ICs that were investigated were those proposed by Spencer-Oatey and Stadler in the GPCF (2009). This study was carried out at a HEI in the UK, with data collected from two student teams undertaking a teamwork project in a STEM subject. A multimethod approach was adopted to collect data. This included direct observation, recording and analysis of team meetings, stimulated reflection interviews, and analyses of online discussions between the team members. Although there were instances of development of ICs, the small sample size means these findings cannot be generalised beyond the specific learners and contexts involved in this study.

### **8.2 Summary of Findings**

The overall finding of this study was that the development of ICs from working on a project in a multicultural team was quite limited. However, it was also seen that the process of development is complex and unique to each learner based on their previous experiences, the role they played in the team, and how they reflected on different incidents during their project. This qualitative analysis of development, using two

theoretical frameworks not previously employed in this type of research context, generated some interesting new facets of intercultural competence development that need to be considered in pedagogic practices, and in future research. These will be discussed further below.

### **8.3 Evaluation of the Contribution of the Study**

The results of the present study shows that several factors are important in the development of intercultural competencies at different stages of the learning process. The main factors are that teamwork by itself does not foster students' ICs, and that facilitated reflection is important to help students develop. Those findings will be considered in more detail according to the three different stages outlined in the literature review (see section 2.2.4), namely, stages that were derived from Taylor's (1994a) framework for developing intercultural competencies and adapted for use in the analyses undertaken in this study. For each stage I will summarise the practical implications for teachers and HEIs. Following this evaluation, I will present recommendations for future research.

#### **8.3.1 Preconditions and Context for Learning**

One of the main findings of this study is that that students in this context need facilitation when it comes to helping them develop intercultural competencies. The students did not seem to know how to independently develop their intercultural competencies. That is to say, they were, for the most part, unable to look at their actions at different points of their projects and identify points to improve upon. This was found to be due firstly, to an insufficient knowledge of what ICs were useful for working in multicultural teams, and secondly, how to develop those ICs by reflecting on their experiences. Some students, such as Carl, admitted to being more focussed on obtaining a positive outcome in their assignment than on teamwork processes. These findings have important practical implications.



### **8.3.1.1 Practical Implications**

Students need to be introduced to IC frameworks in order to aid their thinking and IC development. This type of learning intervention during the initial stages of introducing teamwork projects will help prepare them to learn from the intercultural experiences that they are about to have. This could include a focus on key skills suggested by IC researchers (Deardorff, 2006; Spencer-Oatey & Dauber, 2017), which include the ability to observe, listen, analyse, reflect, accommodate and evaluate. Alternatively, students could be pre-taught theories on intercultural communication and IC development, although researchers such as Turner (2009) did not find this to be effective. This could be because intercultural communication theory does tend to be focusing on national cultures, whereas a more nuanced approach would be required. Care needs to be taken when teaching concepts from intercultural communication lest students start making generalisations about intercultural communication based on nationality, as Turner herself found. Lecturers would need significant input on theories of intercultural communication and developing ICs in order to develop their own interventions to improve the IC development of their students. This approach requires time for the lecturer to develop their teaching and learning practices. They would also need access to the relevant resources to help inform their decisions. Some HEIs may be at an advantage in this if there is institutional expertise they can draw from, or some institutional memory to facilitate curriculum change. Students must also be convinced of its importance and relevance to them. Some research suggests that teamwork is less popular among students than other forms of pedagogy that they are exposed to in HE (Bailey, Hendricks, Applewhite, & Austin, 2015; Ford & Morice, 2003). If this is the case, students should be made aware that the rewards of developing intercultural competencies through teamwork outweigh the inconveniences when it comes to improving their employability and enriching their overall experience of higher education. There would need to be a significant investment of time and resources by HEIs and by teachers in order to achieve this, which could prove to be challenging. However, if HEIs claim, as many do (e.g. “Manchester University,” 2017; “Swansea University,” 2017; “University of Central Lancashire,” 2017; “University of Exeter,” 2017; “University of Surrey,” 2017), that they should help their students develop intercultural

competencies to prepare them for international workplaces, then more resources should be invested in this area.

The focus of student teamwork assignments needs to move from an outcomes-only approach towards an approach that monitors and evaluates teamwork processes. This study found that the students' development of ICs was hindered partly by a strong focus on the task outcome. This finding agrees with the literature on learning theory that the focus when it comes to learning should be on the process, not the outcome (A. Y. Kolb & Kolb, 2005). The implication of this for teaching is that pedagogic assessments need to be adjusted in order to move students' focus to process as well as outcome. This could include requiring students to report on processes themselves. This could be framed as part of the learning experience, since minuting and documenting meetings is part of professional teamwork. Some more guidance on documenting the meetings could enable them to reflect on their communication processes and on strategies they used and developed to work with their team mates. There are some complexities to this. It would give the lecturer more to read and assess alongside the project content that the students would also be assessed on. The lecturer may also not trust the veracity of the reporting, particularly if the students are worried about looking bad in front of the lecturer through the reports. Each lecturer would need to find solutions to enable this approach to work for them in their own teaching context.

It could be argued that lecturers should be more concerned with students obtaining the subject-specific knowledge set as a team assignment and less concerned with students developing intercultural competencies that will aid them in the workplace. If this is the case, then it may be necessary for lecturers teaching on the same degree programme to coordinate their teaching to ensure that each contributes a little to the development of intercultural competencies, so that one lecturer's entire course is not sacrificed to teaching ICs over other subject-related content that they believe to be important to the students' degree progression. The implementation of these approaches would require careful consideration.

### **8.3.2 Incidents that can stimulate learning**

From this study it was found that students who imbued more meaning into different incidents during their teamwork projects were more likely to show evidence of IC development. This was linked to the extent of their overall involvement in the project as shown in the inductive analysis. Also, the students who spoke more during the project and participated in more different aspects of it imbued more meaning into the incidents presented to them and showed more evidence of learning.

#### **8.3.2.1 Practical Implications**

The students who participated more in their teams in terms of talking-time across different types of activity (e.g. task discussion, rapport-related communication, and communicating uncertainty) also imbued more meaning when seeing the incidents shown to them during the interviews. It seems from this that there is a greater chance of experiencing incidents that promote IC development if one actively participates in the communicative processes. Speaking with other team members more often increases the potential for incidents in which a student experiences intercultural contact where there is a cultural disequilibrium. The implication for practitioners is that they need to create more opportunities for these to happen by finding ways to promote more equal participation in teamwork. There are several different strategies for doing this, such as making students more aware of turn-taking in a conversation (Byrne & Fitzgerald, 1996), or teaching team facilitation skills such as bringing less talkative team members into the conversation, how to interrupt others appropriately, and how to check understanding (Dörnyei & Thurrell, 1994). This would require more intense facilitation and dedication of resources but would be beneficial in making group projects more inclusive and increasing the opportunities for learning incidents for all group members.

### **8.3.3 Processes required after there has been an incident to stimulate learning**

A key finding from this study was that students need to engage in reflection in order to learn from their experiences and develop intercultural competencies. It was evident from the interviews that reflection helped the students develop ICs further. This was manifested in various ways, such as furthering their understanding of a particular event

and taking lessons from it, considering different perspectives, or becoming aware of how their behaviour was perceived by others. The importance of using reflection is evident from this study and carries with it several implications for pedagogic practices in HEIs.

#### **8.3.3.1 *Practical Implications***

There are several different strategies that lecturers could adopt in order to encourage reflective practices in students during and following teamwork projects. There are two basic challenges that lecturers face. These are, firstly, starting the reflective process and, secondly, guiding it so that it is meaningful to the students. Starting the reflective process could involve adding reflective written assignments to the team assignment. Asking students to produce their own reflective accounts could help them develop (BOUD Citation). It would also help lecturers understand students' thought processes during teamwork assignments, enable them to improve their curriculum design, and consider possible interventions based on student accounts. Alternatively, it could be that part of the reflective practice is for it to be team-led, so that there is more accountability for the students. On this point, a limitation of this study is that the students were interviewed individually. They may have learnt more about their effect on each other if they had been interviewed as a team, which could have stimulated further competency development through having to process not only their own thoughts and feelings about the teamwork project, but also those of their team mates. However, a potential problem presented by team-led reflective practice is whether students would feel able or inclined to be honest, and/or comfortable expressing their disagreements openly. Guiding the reflective process could be more challenging. This study showed that there were occasions where even though there was reflection on the part of the student there was no evidence of development from it in terms of evidence of a plan to change in behaviour. The nuances required for competency development may not be effectively teased out through basic reflective exercises, especially if these are too broad or poorly framed. This could lead to potential learning moments being lost. Careful facilitation of this sort of exercise would be required, with guidance on how to reflect (e.g. Spencer-Oatey & Davidson, 2014) and access to IC frameworks and other intercultural education resources to help guide students' thinking. This would require lecturers to dedicate time to research/pursue professional development to learn how to facilitate reflection effectively. However, once

there is a protocol in place, the practices can be repeated so as to embed the learning, and students can be encouraged to pursue reflective activities autonomously.

## **8.4 Recommendations for further research**

There are several aspects of this research which need to be taken further in order to enhance understanding of how students develop intercultural competencies from teamwork experiences. This study used a unique combination of methods: team observations, analysis of online communication, and stimulated reflection interviews. It also combined two IC frameworks that had not been previously combined in order to understand the development of ICs from student teamwork experiences (the GPCF and Taylor's model for developing IC). There were several lessons learnt from pursuing this methodology and using these frameworks which should guide future research. These are discussed below.

### **8.4.1 Stimulated Reflection in Interviews**

The stimulated-reflection aspect of this research was used to shed light on students' thought-processes as they went through their teamwork projects. This was useful because it provided insights into the students' rationalisations of their behaviour. However, there is a lack of guidance and standard practice in how to use stimulated reflection so that both researcher and participant get the most out of the practice. In this study I had to use my observations of the team and the guidance from Taylor (1994a) about what constitutes a potential critical incident for developing ICs. It might have been preferable to ask students to select the incidents themselves according to the same set criteria. However, this could have posed different problems, such as the students all choosing different clips, which would have made it impossible to get different perspectives on the same event, or students being unable to remember any incident that fitted the criteria. Further research in this area is needed where researchers try different protocols using stimulated reflection and evaluate their effectiveness. Stimulated reflection was useful in bringing students face-to-face with their behaviour during team meetings. It could be that using this method in research where the students have been adequately prepared for developing ICs through pre-teaching IC frameworks would

encourage far more development than other methods of reflection. However, this is a question that needs further investigation.

#### **8.4.2 Observing student team processes**

Much of the previous research on students working in multicultural teams in HEIs has focussed on self-reporting. One aspect in which this study differed is that the team processes were observed and recorded. This method was quite resource intensive and there was a considerable amount of data to process; however, it did provide insights into teamwork processes that self-reporting research has not. The recommendation from this is that a variety of methods should be used to investigate students working in multicultural teams at university. This would include self-reporting methods, such as interviews and surveys, but should also include observations of meetings and online discussions.

This study only looked at students as they went through one teamwork project. It did not look at students over the course of their whole degree for IC development. Another recommendation for further research using the method is that it should follow the students through the course of their degree as they are assigned several teamwork projects. This would enable a qualitative understanding of cumulative IC development to be recorded and should significantly contribute to IC development theory since current models are based mostly on overseas sojourns.

#### **8.4.3 Combining the GPCF and Taylor's model of IC development**

One of the conclusions from the literature review for this study was that neither the existing IC compositional frameworks nor the IC developmental frameworks were sufficient alone for understanding IC development in students working in multicultural teams. Combining the two types of frameworks was demonstrated to be useful for improving understanding of IC development, although each framework had to be adapted to this context. Clearly, there is a need for more adaptive frameworks, and most importantly, more data needs to be tested on those frameworks. The systematic literature review revealed that very few IC frameworks have been tested empirically in

this context, and even these had only been tested on a few occasions. There is a need for more data to be collected and published, and from a wider range of contexts. This recommendation (Deardorff & Araratsnam-Smith, 2017) is not unique to this study but it is important to repeat and emphasise.

## **8.5 Final thoughts**

The main purpose of this research was to understand if and how students developed ICs from working in multicultural teams. It also aimed to better understand student teamwork processes. Two student teams were observed as they worked on their projects, and they were then interviewed using stimulated reflection interviews. Their online discussions were also analysed.

The most useful finding from this study was that while students did not develop their ICs greatly from their teamwork experiences, reflection was a useful tool for helping them develop. The study provided important empirical evidence for how students behave during teamwork projects, and how more needs to be done in order to ensure that students develop ICs during their degree courses.

These findings have several implications for practitioners, including recommendations for curriculum design, interventions to help students learn about teamwork processes, and the need to facilitate reflective practices. The findings generated several recommendations for further research. These include: further research to test and refine the use of stimulated reflection, more observational research on student teamwork processes, and research to further develop IC development frameworks that can be adapted to a HE context. Adjusting pedagogic practices and undertaking this research is important for HEIs. It will enable them to better prepare students for international workplaces, which will have a positive impact on the workplaces that the students eventually enter, and on wider society through an increase in citizens with the requisite skills to function in a multicultural context with continuous instances of intercultural contact.

## 9 References

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## **10 Appendix 1 – Information Sheet and Consent Form**

### **Participant Information Sheet**

#### **Research Project Title:**

Intercultural Teamwork at University

#### **Names of researchers:**

Thomas Greenaway - Main Researcher  
Prof. Helen Spencer-Oatey - Supervisor

#### **Research Student**

My name is Thomas Greenaway and I am a PhD student at the University of Warwick. I am researching intercultural group work at university. In order to do this I would like to study your group work sessions and would be most grateful if you would agree to participate.

#### **Purpose of the study:**

The purpose of my study is to explore different aspects of group work, to the end of improving our understanding of them. It will involve recording (both video and audio) (some of) your group work discussions, interviewing you and collecting other relevant material such as emails and course extracts over a period of this module.

#### **Confidentiality, Privacy and Participation**

Participation in this project is **entirely voluntary**, and you retain the right to leave the project at any time, without explanation or justification.

The data, as indicated on the consent form, may be used for different purposes. This is hopefully to ensure that the findings are disseminated widely and with the intention of improving practice.

As a participant, you will be entitled to receive feedback and debriefing on the data collected. You will also be given access to transcripts and a copy of the research project will be made available should you wish to read it before it is submitted.

In this project all data, names, places and organisations will be anonymised. This is to protect the identities of the participants.

Thank you for considering participating in this project. If you have any questions or suggestions concerning the study, please do not hesitate to contact me.

**Thomas Greenaway**

Research Project Title:  
Intercultural Teamwork at University

Thomas Greenaway - Researcher  
Prof. Helen Spencer-Oatey - Supervisor

As part of this project we would like to audio and video record your participation in classes and group work meetings and use it in various ways. Please indicate below what uses of the data you are willing to consent to. This is completely up to you. We will only use the records in ways that you agree to.

Please indicate your consent in the tables below:

Your participation can be video and audio recorded ( <i>Please circle</i> ).		Yes		No	
		<b>Transcript of Recording (Yes/No)</b> <b>Please use ✓ or X</b>	<b>Audio Recording (Yes/No)</b> <b>Please use ✓ or X</b>	<b>Written Data (e.g. email) (Yes/No)</b> <b>Please use ✓ or X</b>	<b>Video Recording (Yes/No)</b> <b>Please use ✓ or X</b>
1	The data can be studied by the researchers for use in the research project.				
2	The data can be used for academic and professional publications.				
3	Extracts from the data can be used in training and assessment materials.				
4	Extracts from the data can be showed/played to students or professionals interested in the research project.				
5	Extracts from the data can be shown in presentations to non-specialist groups.				
6	The record of the data can be made available to other academic researchers.				

Email: \_\_\_\_\_ Date \_\_\_\_\_

## 11 Appendix 2 – Data Sample – Case Study One, Incident One

Transcript from incident, Meeting Four, 42:05 – 44:44

1	
2	Carl: One thing that basically hit me was that she said 'there's a lot of categories in there. Normally when you have a categorical variable, if it's 2 or 3 you don't really want to be doing too much without it. The fact that you've got so many categories,' and she used the words 'We have many categories' you may want to look at sorting out and trying to work out the regions and see if there's any erm-
3	Edward: What like combining regions together?
4	Carl: Combining regions together, erm, possibly just omitting the variable altogether. That was the consideration she meant. I don't know what other considerations we can make erm to region. I don't think we can - We can't really omit regions
5	Hitchens: Yeah, at the moment region's just making it much more difficult, it gives rise to many many degrees of freedom just because of region. Erm, which are not really fine.
6	Carl: It might-
7	Edward: It might - It might be worth just not considering it and seeing if we get something really good out of that.
8	Hitchens: Not considering it at all though -
9	Edward: Well for a short period whether we do or not.
10	Carl: Is it worth, is it worth doing a bit of sensitivity analysis on it and maybe as an action coming from this meeting for Monday one's person's role is to go away and look at region do various models of the various transformations and see what effects region has take into account kind of like have a guess at sort of, have a look at erm Nathan's sort of correlation results and try and determine things with that, because it could turn out that if you take region out completely or you start combining regions that it has an effect. So I'm happy to-
11	Edward: Yeah
12	Carl: have a look at region coz I think there's a lot we can do with that you can combine regions, you can just take it out altogether but obviously it's going to take a lot of work to support the models and combine them altogether so I'm happy to look at that.
13	Edward: Let's do that
14	Hitchens: Erm, I can do that, I have to correct my code first for that other part but I can take on that part sure.
15	Carl: Okay.
16	Hitchens: Coz I'm, I am concerned about region. I mean I mentioned this many times actually I was the first to bring this up to The lecturer as when she started like erm posting on the forum. I think she doesn't like giving unfair advantage or something, but yeah I think she does agree that region has to be dealt with.
17	Carl: Erm.
18	Edward: Okay.

19	Carl: I think we need to work on trying to sort out a co-linearity and multi-linearity. Nathan do you want to have a look at, because you've done the correlation...
----	--

## 11.1 Interview Responses to this Incident

### 11.1.1 Carl

Researcher: Okay

Carl: That's interesting, hearing your own voice.

Researcher: Yeah, it sounds different, doesn't it?

Carl: Um hum.

Researcher: So, what do you think, what's your opinion of what happened there?

Carl: Initially when I was coming to it I was quite interested in the region variable, I'd had a bit of a think about it. I had some ideas how to go about it. I thought I was probably the one out of the group that really wanted to push region as a task. I didn't think many of the other members of the group really thought region was going to be a big task, so I didn't particularly want to - I was quite interested in doing it myself and I didn't particularly want to give it to someone as an afterthought. I didn't want to give it as a group action as in "you can do this, this, this, but also look at region if you have time. I was a bit surprised that Hitchens. I didn't know really what to quite make of Hitchens coming out with that, looking back at it, I think at the time I would definitely thinking, I seen you speaking briefly to the lecturer about it, you've clearly had a think about it yourself and I thought, if he was, considering I was so open about it because I didn't realise at the time how adamant you are that you want to do something, considering that to me it sounds like, if I was hearing someone else saying that I would be like "right, he seems quite confident with it, I'll let him get on with it." I was a bit surprised that Hitchens came out and kind of thought "no, I fancy that instead." And I thought, at that point I never imagined it would be because I dunno, he didn't think I was particularly up to the task or he was trying to undermine me in anyway, I thought they'd be an objective reason to the fact that he'd had a thought about it, he'd had some thought processes himself and to be honest, I didn't really want to be the one arguing about petty things like that, so I didn't really want to be tugging it away from him, because I think if I'd come back to him and said, "no I fancy that" it'd be like "I want that" "No, I want that," we'd be sort of petty squabbling.

Researcher: When I was there in the room I saw that, I knew that you wanted to do region and then you were surprised that Hitchens volunteered to do it, because it'd been your style on other occasions, you'd propose something and

then volunteer to do it. Which is quite an interesting way of saying “we should do this, I’ll do it.”

Carl: I quite like it because I think-

Researcher: Yeah, it works, and I was surprised, and there’s a moment of hesitation actually when Hitchens says “I’ll do that.” and then you wait and then you say “okay”

Carl: Yeah, I was having thinking time, I can’t remember exactly what I thinking but I didn’t quite know what to say at that point. I think for the most part, I was thinking “Would this be a good idea? Is it really a problem if Hitchens does it? and then I was also thinking are there other things that I could do, that I could contribute towards, not so much in a positive manner, because it all contributes in a positive manner, but more an effective manner?”

Researcher: And actually what happened later in the meeting when Edward asked “Is everyone happy with what they’ve got to do?” and you said “No” because you didn’t have any work.

Carl: Yeah. I always like to go away with actions.

#### **11.1.2 Edward**

Edward: I don’t know what (Laughter)

Researcher: So, tell me what happened there.

Edward: I don’t really know, it just seemed like a discussion to me.

Researcher: Okay. So, you were talking about region.

Edward: Yes.

Researcher: Carl proposed that he looks into the region, he proposed ‘I suggest that we look into the region variable, or someone looks into the region variable’ and then he volunteers himself to do it. Then Hitchens said ‘I can do that.’ (Laughter from Edward) and Carl then said okay after a moment’s hesitation and Hitchens then justified why he could do it.

Edward: Okay.

Researcher: So, what do you think about that.

Edward: I didn’t pick up on that (Laughter)

Researcher: Okay, what were you doing at this point, I suppose you were facilitating there.

Edward: Hmm, just trying to promote a discussion.

Researcher: Okay. that's fine if you didn't think anything, then that's fine.

Edward: I mean, at this point we were still coming together as a group, so no one know exactly what sort of roles they wanted to play, what sort of parts of the work they were better at.

Researcher: Okay, I mean for you, for your group I can see that. For me, as an outsider it was quite clear where the roles were by that point already. But, we'll talk about that a little later. Okay, so then that was decided, the region variable work was given to Hitchens. Then I had this big surprise when I came into the next meeting.

Edward: Oh, is this the conflict. (Laughter) Okay, and you saw it in the last video then, there were suggestions that this may happen.

Researcher: Actually even at the time, when that happened, when Carl volunteered himself and Hitchens said 'I'll do it.' I made a note saying, I wonder if anything will happen from this. I didn't expect, because I make these notes all the time, I didn't expect, I thought maybe something but there were other things where I thought maybe something, and there wasn't. So anyway, then we came to this meeting after what was apparently a big fall out on Facebook. I don't know.

Edward: Yes.

### **11.1.3 Hitchens**

Researcher: Okay, so what happened there?

Hitchens: Oh, right, what happened there? If I remember I was quite a bit tired to be honest because Carl was talking for about 30-40 minutes on something we both did and I was constantly staring at my laptop. Most of the stuff he was saying did not really agree with the stuff I said, that I came up with and I thought maybe I should give this some more time because I didn't feel that my part was very strong to influence the judgment and, that's when the fall out happened. The interesting thing is I didn't agree at all with the, with how the model development was going and I think what was very stupid, I didn't mention it at the meeting, I don't know why I didn't mention it, I felt I wanted to do a bit more research on that and then sort of see whether my point kind of stood, and that's what I did as soon as I went home. The next four days I didn't really get out of my house. I first dealt with that region suggestion that I, that they, that we proposed to do and as a next task I worked on the model development, which took ages and at some point, because we discussed starting to write up, so Edward was starting to write up, so I felt I didn't want him to start writing up something that



we might change in the end, and the way I phrased it may have been a bit concerning for Carl I think, because I kind of said 'leave the model development-

Researcher: Just, go back to this.

Hitchens: Oh,

Researcher: So, what happened here, I mean is, Carl suggested dealing with the region variable, and then he volunteered himself to do it-

Hitchens: Oh.

Researcher: And then you said 'I'll be happy to do that'

Hitchens: Oh I thought he said to, I thought he said someone to do it, I probably misheard him.

Researcher: Okay, so that was the thing where, because there is a moment where you said 'I can do that.' and Carl paused, and I remember being in the room and thinking, 'Carl wants to do this, and you've volunteered and he's agreed for you to do it.' And I actually made a note, 'I wonder if this will cause a problem later on.'

Hitchens: (Laughter) I genuinely did not even hear that he said that, can you put it back?

Researcher: Yeah.

Hitchens: Oh, that is so.

Researcher: Yeah, I mean it's obvious from the way your speaking that he wanted to it himself, so, lets see if it's here.

\*\*\*Replays Clip\*\*\*

Hitchens: I think I completely misunderstood him there. I find that after someone speaks for a very long time I turn off at some point, it just gets a bit monotone I think, and that was probably where I sort of stopped registering what was going on.

Researcher: Okay, you'd stopped listening to every word.

Hitchens: Yeah.

Researcher: And then you misheard and then, okay.

Hitchens: I think that was, that played a big role in that. I didn't even realise, that did cause a big problem, that kind of explains a lot why Carl might have felt upset when I took up that role and then in the end started the model development as

well, because at the start it didn't really seem like I dealt with the region thing that I said initially and I just model development so, I understand why he got a bit annoyed here.

Researcher: Yeah, okay, lets go onto the next clip.

Hitchens: Oh okay.

Researcher: Which is the conflict reconciliation, which I was actually, I was very impressed with, how this was handled.

Hitchens: Oh we handled it online beforehand I think.

Researcher: I didn't know that, but.

#### **11.1.4 Nathan**

Researcher: Okay. So what's happening there?

Nathan: So, basically, I think Carl just said he can do that and then Hitchens said he can also do that, like the region variable.

Researcher: Yeah.

Nathan: So maybe that's when it all started, maybe.

Researcher: Did you notice anything strange at the time?

Nathan: At the time, yeah, I know both of them are going to work on the- I know at the time though actually, they were working on the same model development before this meeting, and then during this meeting, I remember I was late that morning because it was hard to find a parking spot I think, and then I was 20 minutes late I think, and then when I arrived they'd already done the discussion about their findings so I couldn't notice what they've discussed and then Edward, we moved onto region variables and, yeah at the time I couldn't really notice anything, but maybe just a little bit, like both of them said 'we can do that.'

Researcher: So eventually Hitchens did it, and then there was the fall out on Facebook and, were you part of any of that?

Nathan: I didn't draw in their fight sort of thing, I just gave advice, because both of them proposed the model so I was doing co-linearity on both of them so I was trying to find out, because we had a model already at that time, and then Hitchens sort of - interrupted by phone - So I did the co-linearity check on both of their models and I remember my result was in favour of Carl's ones and I remember when I read about Hitchens' Facebook I was at dinner with my friends so I sort of skimmed it.

Researcher: Okay

Nathan: And I didn't really look into it, and I thought he thinks he finds some serious mistakes in our model, then I thought I'll see what I can look into when I got back, so when I got back I went through the Facebook page and I discussed with Hitchens and he said he was working on a new model and when he finishes he give it to me to check about the co-linearity. Yeah, I did both on his and Carl' model and it was still a bit in favour of Carl', the result.

Researcher: It sounds like you were involved in terms of the work, but their actual-


Nathan: Yeah, they're actual, because they are doing model development, me and Edward actually didn't have any part in it so if Hitchens found out there's a fault in our compared model, that should be a doubt on Carl' work or (incomprehensible) so-

Researcher: So, it's Carl' job.

Nathan: Yeah, at the time. I assume, I think I remember Hitchens said something on the day of the meeting, I remember Carl proposed a model and then Hitchens said there was something wrong with his R code or something so he didn't actually say what his finding was, if that was true I guess he got through it.

Researcher: Okay, so then the next meeting...

## 11.2 Case Study One, Facebook Communication after this Incident, and Beginning of Incident Two



H. [redacted]

23 January Posted at 00:24

E. [redacted] can you please, not type up the model as I don't think our model at the moment is too great. I have been reading through an article that explicitly says when to perform power transformations, and I believe most of our power transformations were not satisfied and will lead to over fitting. It states that they should only be performed if the improvement in the model is significant, and it is justified if you have an improvement of 10 or more in the BIC, otherwise not to transform. I am planning to upload everything on dropbox by Sunday night, with my suggestions and model building properly documented, along with a modification to the pairs EDA plots, so that they take up less space, I will put the Histograms with their fitted smooth lines along the diagonal. That way we don't have to waste excessive space on graphs. Sorry for the short notice, please let me know if you think that is too late. I understand that the writing will take time.

 Like  Comment

N. [redacted] likes this.

✓ Seen by everyone

E. [redacted] I am still writing up the EDA in all fairness, there is a lot of stuff that can be said. The most important thing with the model development is a clear progression with transformations hence we need the proper reasonings and justification.

23 January at 07:28 · Like

E. [redacted] We should report by building upward from the prior model we decided on two meetings ago. Test it (heteroscedasticity, non-linearity, non constant variance, etc), show the results of the tests, say what the tests indicate and using transformations that those tests indicate.

23 January at 18:13 · Edited · Like

H [redacted] t I think those are good tests but they are not sufficient in testing whether the transformation or the change in the model are justified. To do that

you need to consider AIC and BIC values. And see whether there is a very significant improvement to your model if you undergo a transformation. So what I will do is start the model from scratch and build it up properly, like we should have done. This took me a lot of time to understand fully and is still a learning processes but i think i have a much better idea of how to approach this now. Today I will work on the eda I was telling you about so that you can save some space and you have a general idea how much each part will take. I am not sure if we should use boxplots in the eda as they take up a lot of room, but it is up to you guys to decide. In the r code i uploaded there is a part with xyplots, which colour the different regions and there are some interesting plots there. In regards to the work I will do this weekend, I will make sure that by Sunday night, whether it be morning of Monday or really late Sunday, I upload my written part for the model build-up, and clearly reference everything, writing in an academic style. This will in turn save you a lot of time when you write it up. Of course you don't have to take the entire of my part you can edit it, adding and removing bits, but I think it would be a lot easier when finalizing the whole report if I have it pre-finalized beforehand.

23 January at 14:08 · Like

E [redacted] When you say build up the model from scratch is that with our prior convictions from the EDA already done?

23 January at 18:09 · Like

C [redacted] H [redacted] - i'm not keen on this idea of starting from scratch. We have just over a week to submit everything and one person doing the whole thing is definitely not the way to go about writing a group academic report, regardless of how it is written. i suggest you do your analysis, and report back to us your summarised conclusions and then we decide as a group what to include in the report. We have made very little changes to our model since the initial part but I feel every decision has been justified, whether it is statistically or theoretically. On a short point, the BIC increases by 8.2 when we add the quadratic terms and transform the data, and although this is below the threshold, we have reason to include these terms because of linearity improvements and interpretational reasons.

23 January at 18:32 · Like



**C** [redacted] I was also under the impression that we had been allocated specific jobs on thursday for the session on Monday and your role was looking at the Region variable. This is going to be a significant job looking at Region because it has been highlighted as very problematic, and going against the group's decision and analysing whatever you want instead of sticking with the agreed plan is not working as a team at all.

23 January at 18:36 · Like

**C** [redacted] It will also put us behind on our schedule. If you are adamant that you want to start from scratch and do your own analysis, could you please outline to everyone what exactly we have been doing wrong and what you will do differently?

23 January at 18:38 · Like

**H** [redacted] I have done some research on the region variable and we are not justified to remove it or even change it statistically. So i believe that we should keep it as it is. Also you are NOT supposed to change the model, or perform a transformation, unless the BIC decreases by at least 10 pts. Otherwise you are not justified to undertake the transformation. If it actually increases, that is even worse. I don't mean to be judgmental, after reading some journals and more on variable selection, I feel very strongly that our approach was incorrect. The model without any transformations, compared to the model with all the transformations have a very small difference in BIC, AIC that being the model with all the transformations is slightly better, which would have been ok if it was just one transformation, however it is 10 if you include the extra terms, in my judgement, this would only be justified by a minimum of 100 point decrease in the BIC. The reason I said i will have everything ready for Monday's meeting is so that we can scrutinize all my findings together. I will prepare the work in a way that will not put us behind schedule as everything will be referenced and properly quoted hence we will save some time from the writing up. I do suggest that we all do this individually as we really do have to start collating finalized information. If you also want to re look into you model building and collate the information, that is what I wanted to happen all along. It is better in academic research to have many parts to pick from, obviously on the Monday session we have to properly go over everything together. I really hope I am not slowing things down. I can keep you updated on the work as I am going if you like with uploads on dropbox, so that you can have a look at it and scrutinize provide comments.

23 January at 23:42 · Like

H [redacted] t And I do agree that region is problematic, but it is something to talk in the criticisms of the model as it is a very good point to bring up. Even though statistically we may not be justified to do anything with region we can still highlight it. And i think the best way to deal with region is to find any obvious outlying region, then bring it up on Monday to discuss what we feel is the best way to approach the situation

23 January at 23:45 · Like

H [redacted] Hey guys just finalized all my findings in the Region Variable and I came up with two suggestions. I would appreciate some new sets of eyes to comment and improve the tests. I have uploaded the R-code along with two additional datasets you will require when using the code. There are comments throughout the file let me know if anything is wrong, if you have suggestions etc. We also have to establish a method to select a model, I made a suggestion in the r-code, or at least how I believe I will proceed. C [redacted] if you don't have too much to do, I will also like you to start on the same track as myself using the region suggestion if you all agree with it, and perhaps testing additional techniques to selecting a model. From my explanation of how I will proceed, you can assume that I will be proceeding in a "Backwards manner" similar to Backwards elimination techniques, except i will not be eliminating variables, unless i can remove one in which case i will use a regressive method, i.e. at every stage of the process i test whether the variable i have removed improves the model. Ofc there are quite a few criticisms when using this technique, but most times it produces great results. Are you guys all ok

with that?

24 January at 03:54 · Like

C [redacted] It appears that I will be wasting my time writing up what we have already done in model development so I will leave that to H [redacted] I'll continue to look at the region variable, fill in the gaps in E [redacted]'s EDA and then try and research other ways in which to advance our model.

24 January at 09:36 · Like ·  1 Liked by H

H [redacted] Great that is perfect! That will save us even more time, as we will have one of us who will be quite familiar with model advancement. Thanks C [redacted] that was a really great suggestion. I will upload all the relevant articles/books onto dropbox.

24 January at 11:41 · Like

24 January at 11:41 · Like

Lecturer

C [redacted] I'd just like to make a couple more points: Firstly, [redacted] has constantly said that the assignment is not about getting the best model, it is about using the tools we have been given to make informed decisions.

Therefore, when we do analysis, can I suggest that we use as many of the following as possible to check the assumptions:

- All models are tested for:


- o Linearity – residual vs fitted value plot, partial residual plots, marginal model plots

- o Homoscedasticity – scale-location plot, spread level plot, ncvTest

- o Normality – QQ Plot

- o Unusual data points – Residual vs Leverage plot, outlierTest, DFFITS, Added Variable Plots identify points that are jointly influential and variables which have an influence on the response.

- o Correlated errors

24 January at 12:24 · Like ·  1

Liked by E

Lecturer

C [redacted] How we approach and interpret these tests are my second point [redacted] has also mentioned that she was deliberately vague about why we are fitting a model, and it is up to us to be clear about why we are doing it. Our "goal" will determine the approach we take and I think we have been having differing opinions on this. I have always gone along the lines of fitting a model which can be used to interpret why happiness increases due to various variables changing. This could then also be used for predictions for clients in the future. I feel this goal incorporates my above post the best. Correct me if I'm wrong, but I don't think getting the best model in terms of statistical evidence (AIC/BIC etc.), although important, is the be all and end all if this is our goal. Therefore can people clarify exactly what they think our goal of this assignment is and align our thoughts accordingly as I think the reason we have been having problems may not be down to thinking different approaches are correct, but more we have different goals to which each has a different correct approach. Let me know what you think guys.

24 January at 12:30 · Like

E [redacted] The goal is to fit a model which can be used to interpret why happiness increases due to various variables changing, finding one with a suitably high  $R^2$ , BIC/AIC, which follow linear regression assumptions that is also simple enough to interpret.

We are trying to find a compromise between simplicity and Model fit.

24 January at 12:43 · Edited · Like



**E** The goal is to fit a model which can be used to interpret why happiness increases due to various variables changing, finding one with a suitably high  $R^2$ , BIC/AIC, which follow linear regression assumptions that is also simple enough to interpret.

We are trying to find a compromise between simplicity and Model fit.

24 January at 12:43 · Edited · Like

**H** Exactly, simplicity is vital when fitting a model that is easy to interpret, by anyone, in my mind simplicity arises from fitting a model that is accurate with the least possible parameters, and least possible transformations. This is because the transformations are performed using the data and not a trained set, which increases the likelihood of fitting a model that is great for a particular dataset but not representative of the population.

Also regarding AIC/BIC, Simon and Sheather, and I think also Faraway, argued that AIC and BIC are better selection methods when your dataset is small with a lot of parameters, almost perfectly describing our data.

I have uploaded some of my references regarding model selection

see A modern approach R\_Simon J.Sheather (pages 240-241)

24 January at 14:16 · Like

**H** also the article is called abn\_... see page 5

24 January at 14:17 · Like

**H** See the survey of cross-validation procedures for model selection (pages 47-48) for some criticism on the AIC/BIC method

24 January at 14:17 · Like

**H** And also Bootstrap (p559), read the conclusion for some constructive criticism and possible other approaches for our model, which are unfortunately too difficult and time consuming to implement

24 January at 14:18 · Like

**C** with regards to transformations, i think quadratic terms improves our interpretation of some variables as well improving non-linearity. yes they are performed based on data but we have valid theories to suggest that they would be viable for another dataset or the population as a whole.

24 January at 14:19 · Like

H...t Ok, I respect your opinion, but I highly disagree with that statement. How exactly does adding one new parameter improve model interpretation? Please support you arguments with academic evidence, I am happy to support your opinion if there is solid academic evidence behind this approach. I couldn't however find any so please help me out here.

I think this group has great potential and we are all a very good team. However we all have to understand that there is no perfect model. The entire point of the report is to explain our reasoning carefully and rigorously, and unfortunately rigour when it comes to academic work arises from cross-referencing many sources of academic work and following a similar approach, that has already been tested. Using intuition is great, but supporting it with academic work makes it much more rigorous.

24 January at 14:28 · [Like](#)

C... From the lectures, adding a quadratic term as well as a linear term, means that a unit change in the predictor causes the expected value of the response to change proportional to what the original value of the predictor was. So take Life Expectancy. Without the quadratic term, our interpretation is if LifeExp increases by one year, then Ladder increases by a constant value, regardless of the initial value of LifeExp. This is not realistic, as someone having an extra year to live at 30 is going to be worth a lot more than someone having an extra year to live at 80. Adding the quadratic term penalises the increase in Ladder, and this penalty is greater if the initial value of LifeExp is greater. Hence, a quadratic term makes our interpretation of the model more realistic and given the purpose of the model, this is an improvement.

24 January at 14:41 · [Like](#)

C... I entirely understand there is not a perfect model - I've said this from the start that this is not the aim of the assignment. I also understand that we need to support our decisions with academic evidence. I am not suggesting we base our decisions on intuition at all, but simply we should not entirely use numerical tests to guide us through our development. Given these numerical tests are based on the data, that is virtually the definition of overfitting. The trick is to strike a balance between the two and all I'm doing playing devil's advocate by continually cross-checking with and referring to the subject knowledge and as some would say, softer analysis such as real life applications. I think it would be more beneficial to our report if we showed that all aspects of the problem have been considered, as opposed to the entirely hard facts of numbers and tests.

24 January at 14:49 · [Like](#)

E [redacted] I am not seeing any conflicting opinions here. We are aiming to create a simple model. We are introducing terms based on subjective reasoning and tests, and then testing these new models for assumptions and model fit. If they are good enough we are moving onto either more introduction or reduction of terms using other tests. Obviously testing requires interpretation grounded in literature and common sense, which is a compromise that we better discuss as a group.

24 January at 14:54 · [Like](#)

E [redacted] We will have plenty to write about model development and discussion.

24 January at 14:55 · [Like](#)

C [redacted] I agree with everything above. Let's stick with the jobs we have allocated ourselves and agreed upon and then discuss our results on Monday and move onto the next stage. We now don't have enough time to be playing around with different approaches, we just need to knuckle down and head in the same direction, without interfering with other's work if there's no need.

24 January at 14:58 · [Like](#)

H [redacted] I do agree expert knowledge and graph interpretation is vital, and your model does have an improved RSS than the prior which is great. But coming back to the transformations, [redacted] emphasised that we should question polynomial transformations. Simply adding 6 transformations because the graphs and analysis is better is questionable, as the changes occurring when we transform are minute, and I am not sure how much of a graphical interpretation expert you are, but the changes are so small that it is very difficult to tell from the graphs alone. I also looked at the graphs and the difference in each case is too small. My suggestion is we do what we said initially. We both fit a model and justify it. So far only you fitted a model and are not letting me fit one. Don't get me wrong, but I don't think that is how group projects work. This is why I suggested that we both finalise our parts on the model building and one Monday we pick and choose between the two. We have plenty of time to play around using R and compromise between the two. Plus with two of us working on this there is a much larger chance that we see something that the other person didn't. Now I can't spend much more time justifying my decision to continue with the model building as I have done my part with Region and this is simply something extra, which I feel is important when it comes to the quality of the work, since we will be able to incorporate both our methodologies together and provide more justification than one person could provide on their own.

24 January at 15:04 · [Like](#)

Lecturer



C [redacted] i'm not stopping you fitting a model at all - it appears everyone has fitted several. all i am doing is as mentioned above, playing devil's advocate to the text books and questioning why are we doing it? we added 6 transformations to the prior, not based on graphical evidence alone, but on real life interpretation and every single transformation test that was mentioned in the lecture notes. an improved RSS is no justification for model improvement either - see ST221 notes. i did my justification for the transformations on thursday when it was meant to have been done, which were agreed by everyone including explicitly yourself and then roles were allocated to move on. the changes to the model fit may be small but without transformations, our assumptions of the linear model such as linearity and normal errors are worse. you don't need to go on anymore, we will discuss on monday what you manage to conclude and most likely we will go with it given you've read around the subject of transformations, but i always like to question what the results of statistical tests tell us and if i interpret them differently, then i will make that point for the benefit of the group.

24 January at 15:18 · [Like](#)

Write a comment...

